

BEST AVAILABLE COPY

分 冊

Separate Volume

出願番号 特願2003-131392

[S T.10/C] : [JP2003-131392]

分冊番号 2/2

CERTIFIED COPY OF
PRIORITY DOCUMENT

His Lys Arg Lys Lys Glu Arg Lys Lys Glu

305 310

<210> 400

<211> 264

<212> PRT

<213> Homo sapiens

<400> 400

Met Thr Gly Ser Asn Ser His Ile Thr Ile Leu Thr Leu Asn Val Asn

1 5 10 15

Gly Leu Asn Thr Pro Ile Lys Arg His Arg Leu Ala Ser Trp Ile Lys

20 25 30

Ser Gln Asp Pro Ser Val Cys Cys Ile Gln Glu Thr His Leu Ile Cys

35 40 45

Lys Asp Ala Tyr Arg Leu Lys Ile Lys Gly Trp Arg Lys Ile Tyr Gln

50 55 60

Ala Asn Arg Lys Gln Lys Lys Ala Gly Val Ala Ile Leu Val Ser Asp

65 70 75 80

Lys Ser Asp Phe Lys Pro Thr Lys Ile Lys Arg Asp Lys Lys Gly His

85 90 95

Tyr Ile Met Val Lys Gly Ser Met Gln Gln Glu Glu Leu Thr Ile Leu

100 105 110

Asn Ile Tyr Ala Pro Asn Thr Gly Ala Pro Arg Phe Ile Asn Glu Val

115 120 125

Leu Arg Asp Pro Gln Arg Asn Leu Asp Ser His Thr Ile Ile Met Gly

130 135 140

Asp Phe Asn Thr Pro Leu Ser Ile Phe Asp Arg Ser Thr Arg Gln Lys

145	150	155	160
Val Asn Lys Asp Thr Gln Asp Leu Asn Leu Thr Leu Gln Gln Ala Asp			
165	170	175	
Leu Arg Asp Ile Tyr Arg Thr Leu His Pro Lys Ser Thr Glu Tyr Thr			
180	185	190	
Phe Phe Ser Ala Leu His His Thr Tyr Ser Lys Thr Asp His Ile Leu			
195	200	205	
Gly Ser Lys Ala Leu Leu Ser Lys Cys Lys Arg Thr Glu Ile Thr Thr			
210	215	220	
Asn Cys Leu Ser Asp His Ser Ala Ile Lys Leu Glu Leu Arg Ile Lys			
225	230	235	240
Lys Leu Thr Gln Tyr His Ile Ser Thr Trp Lys Leu Asn Asn Leu Leu			
245	250	255	
Leu Asn Asp Tyr Trp Val Asn Asn			
260			

<210> 401

<211> 852

<212> PRT

<213> Homo sapiens

<400> 401

1	5	10	15
Met Leu Ile Thr Glu Arg Lys His Phe Arg Ser Gly Arg Ile Ala Gln			
20	25	30	
Ser Met Ser Glu Ala Asn Leu Ile Asp Met Glu Ala Gly Lys Val Ser			
35	40	45	
Lys Ser Cys Asn Ile Thr Glu Cys Gln Asp Pro Asp Leu Leu His Asn			

Trp Pro Asp Ala Phe Thr Leu Arg Gly Asn Asn Ala Ser Lys Val Ala
 50 55 60
 Asn Pro Phe Trp Asn Gln Leu Ser Ala Ser Asn Pro Phe Leu Asp Asp
 65 70 75 80
 Ile Thr Gln Leu Arg Asn Asn Arg Lys Arg Asn Asn Ile Ser Ile Leu
 85 90 95
 Lys Glu Asp Pro Phe Leu Phe Cys Arg Glu Ile Glu Asn Gly Asn Ser
 100 105 110
 Phe Asp Ser Ser Gly Asp Glu Leu Asp Val His Gln Leu Leu Arg Gln
 115 120 125
 Thr Ser Ser Arg Asn Ser Gly Arg Ser Lys Ser Val Ser Glu Leu Leu
 130 135 140
 Asp Ile Leu Asp Asp Thr Ala His Ala His Gln Ser Ile His Asn Ser
 145 150 155 160
 Asp Gln Ile Leu Leu His Asp Leu Glu Trp Pro Lys Asn Asp Arg Glu
 165 170 175
 Ala Tyr Lys Met Ala Trp Leu Ser Gln Arg Gln Leu Ala Arg Ser Cys
 180 185 190
 Leu Asp Leu Asn Thr Ile Ser Gln Ser Pro Gly Trp Ala Gln Thr Gln
 195 200 205
 Leu Ala Glu Val Thr Ile Ala Cys Lys Val Asn His Gln Gly Gly Ser
 210 215 220
 Val Gln Leu Pro Glu Ser Asp Ile Thr Val His Val Pro Gln Gly His
 225 230 235 240
 Val Ala Val Gly Glu Phe Gln Glu Val Ser Leu Arg Ala Phe Leu Asp
 245 250 255
 Pro Pro His Met Leu Asn His Asn Leu Ser Cys Thr Val Ser Pro Leu
 260 265 270
 Leu Glu Ile Met Leu Gly Asn Leu Asn Thr Met Glu Ala Leu Leu

275	280	285
Glu Met Lys Ile Gly Ala Glu Val Arg Lys Asp Pro Phe Ser Gln Val		
290	295	300
Met Thr Glu Met Val Cys Leu His Ser Leu Gly Lys Glu Gly Pro Phe		
305	310	315
Lys Val Leu Ser Asn Cys Tyr Ile Tyr Lys Asp Thr Ile Gln Val Lys		
325	330	335
Leu Ile Asp Leu Ser Gln Val Met Tyr Leu Val Val Ala Ala Gln Ala		
340	345	350
Lys Ala Leu Pro Ser Pro Ala Ala Thr Ile Trp Asp Tyr Ile His Lys		
355	360	365
Thr Thr Ser Ile Gly Ile Tyr Gly Pro Lys Tyr Ile His Pro Asn Phe		
370	375	380
Thr Val Val Leu Thr Val Cys Gly His Asn Tyr Met Pro Gly Gln Leu		
385	390	395
Thr Ile Ser Asp Ile Lys Lys Gly Gly Lys Asn Ile Ser Pro Val Val		
405	410	415
Phe Gln Leu Trp Gly Lys Gln Ser Phe Leu Leu Asp Lys Pro Gln Asp		
420	425	430
Leu Ser Ile Ser Ile Phe Ser Cys Asp Pro Asp Phe Glu Val Lys Thr		
435	440	445
Glu Gly Glu Arg Lys Glu Ile Lys Gln Lys Gln Leu Glu Ala Gly Glu		
450	455	460
Val Val His Gln Gln Phe Leu Phe Ser Leu Val Glu His Arg Glu Met		
465	470	475
His Leu Phe Asp Phe Cys Val Gln Val Glu Pro Pro Asn Gly Glu Pro		
485	490	495
Val Ala Gln Phe Ser Ile Thr Thr Pro Asp Pro Thr Pro Asn Leu Lys		
500	505	510

Arg Leu Leu Asn Leu Pro Gly Tyr Leu Gln Lys Lys Glu Glu Ile Lys
 515 520 525
 Ser Ala Pro Leu Ser Pro Lys Ile Leu Val Lys Tyr Pro Thr Phe Gln
 530 535 540
 Asp Lys Thr Leu Asn Phe Ser Asn Tyr Gly Val Thr Leu Lys Ala Val
 545 550 555 560
 Leu Arg Gln Ser Lys Ile Asp Tyr Phe Leu Glu Tyr Phe Lys Gly Asp
 565 570 575
 Thr Ile Ala Leu Leu Gly Glu Gly Lys Val Lys Ala Ile Gly Gln Ser
 580 585 590
 Lys Val Lys Glu Trp Tyr Val Gly Val Leu Arg Gly Lys Ile Gly Leu
 595 600 605
 Val His Cys Lys Asn Val Lys Val Ile Ser Lys Glu Gln Val Met Phe
 610 615 620
 Met Ser Asp Ser Val Phe Thr Thr Arg Asn Leu Leu Glu Gln Ile Val
 625 630 635 640
 Leu Pro Leu Lys Lys Leu Thr Tyr Ile Tyr Ser Val Val Leu Thr Leu
 645 650 655
 Val Ser Glu Lys Val Tyr Asp Trp Lys Val Leu Ala Asp Val Leu Gly
 660 665 670
 Tyr Ser His Leu Ser Leu Glu Asp Phe Asp Gln Ile Gln Ala Asp Lys
 675 680 685
 Glu Ser Glu Lys Val Ser Tyr Val Ile Lys Lys Leu Lys Glu Asp Cys
 690 695 700
 His Thr Glu Arg Asn Thr Arg Lys Phe Leu Tyr Glu Leu Ile Val Ala
 705 710 715 720
 Leu Leu Lys Met Asp Cys Gln Glu Leu Val Ala Arg Leu Ile Gln Glu
 725 730 735
 Ala Ala Val Leu Thr Ser Ala Val Lys Leu Gly Lys Gly Trp Arg Glu

740	745	750
Leu Ala Glu Lys Leu Val Arg Leu Thr Lys Gln Gln Met Glu Ala Tyr		
755	760	765
Glu Ile Pro His Arg Gly Asn Thr Gly Asp Val Ala Val Glu Met Met		
770	775	780
Trp Lys Pro Ala Tyr Asp Phe Leu Tyr Thr Trp Ser Ala His Tyr Gly		
785	790	795
Asn Asn Tyr Thr Asp Val Leu Gln Asp Leu Gln Ser Ala Leu Asp Arg		
805	810	815
Met Lys Asn Pro Val Thr Lys His Trp Arg Glu Leu Thr Gly Val Leu		
820	825	830
Ile Leu Val Asn Ser Leu Glu Val Leu Arg Val Thr Ala Phe Ser Thr		
835	840	845
Ser Glu Glu Val		
850		

<210> 402

<211> 865

<212> PRT

<213> Homo sapiens

<400> 402

Met Ser Leu Gln Asp Ser Thr Leu Ser Arg Glu Gly Lys Pro Glu Gly

1 5 10 15

Glu Ile Met Ala Ala Val Phe Phe Ser Val Gly Arg Leu Ser Pro Glu

20 25 30

Val Thr Gln Pro Asp Glu Asp Leu His Leu Gln Ala Glu Glu Thr Gln

35 40 45

Leu Val Lys Glu Ser Val Thr Phe Lys Asp Val Ala Ile Asp Phe Thr
 50 55 60
 Leu Glu Glu Trp Arg Leu Met Asp Pro Thr Gln Arg Asn Leu His Lys
 65 70 75 80
 Asp Val Met Leu Glu Asn Tyr Arg Asn Leu Val Ser Leu Gly Leu Ala
 85 90 95
 Val Ser Lys Pro Asp Met Ile Ser His Leu Glu Asn Gly Lys Gly Pro
 100 105 110
 Trp Val Thr Val Arg Glu Ile Ser Arg Ile Pro Tyr Pro Asp Met Glu
 115 120 125
 Pro Lys Pro Ala Thr Lys Asn Ala Thr Arg Thr Lys Ala Ile Ser Glu
 130 135 140
 Asp Leu Ser Gln Glu Ala Ile Leu Glu Lys Leu Thr Glu Asn Gly Leu
 145 150 155 160
 Trp Asp Ser Arg Met Glu Gly Leu Trp Lys Trp Asn Asp Arg Ile Leu
 165 170 175
 Arg Leu Gln Asn Asn Gln Glu Asn His Leu Ser Gln Arg Ile Ile Pro
 180 185 190
 Leu Lys Lys Thr Pro Thr Ser Gln Arg Gly Phe Arg Phe Glu Ser Ile
 195 200 205
 Leu Ile Pro Glu Pro Gly Ile Ala Thr Glu Glu Leu His Ser Arg Cys
 210 215 220
 Gln Thr Gln Glu Glu Asn Phe Thr Glu Asn Leu Asn Leu Ile Thr Asp
 225 230 235 240
 Thr His Leu Gly Lys Ile Ile Cys Lys Glu Met Lys Gly Ser Lys Ala
 245 250 255
 Ile Arg Gln Thr Ser Glu Leu Thr Leu Gly Lys Ser Asn Asn Lys
 260 265 270
 Glu Lys Pro Tyr Lys Cys Ser Thr Cys Glu Lys Ala Phe His Tyr Arg

275	280	285
Ser Leu Leu Ile Gln His Gln Arg Thr His Thr Lys Glu Lys Pro Tyr		
290	295	300
Glu Cys Asn Glu Cys Gly Lys Thr Phe Ser Gln Pro Ser Tyr Leu Ser		
305	310	315
Gln His Lys Lys Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu		
325	330	335
Cys Gly Lys Ala Phe Ile Ala Ser Ser Ser Leu Met Val His Gln Arg		
340	345	350
Ile His Thr Lys Glu Lys Pro Tyr Gln Cys Asn Val Cys Gly Lys Ser		
355	360	365
Phe Ser Gln Cys Ala Arg Leu Asn Gln His Gln Arg Ile Gln Thr Gly		
370	375	380
Glu Lys Pro Tyr Lys Cys Ser Glu Cys Gly Lys Ala Phe Ser Asp Lys		
385	390	395
Ser Lys Leu Ala Arg His Gln Glu Thr His Asn Gly Glu Lys Pro Tyr		
405	410	415
Lys Cys Asp Asp Cys Gly Lys Ala Phe Arg Asn Lys Ser Tyr Leu Ser		
420	425	430
Val His Gln Lys Thr His Thr Glu Glu Lys Pro Tyr Gln Cys Asn Glu		
435	440	445
Cys Gly Lys Ser Phe Lys Asn Thr Thr Ile Phe Asn Val His Gln Arg		
450	455	460
Ile His Thr Gly Glu Lys Pro Phe Arg Cys Asn Glu Cys Gly Lys Ala		
465	470	475
Tyr Arg Ser Asn Ser Ser Leu Ile Val His Ile Arg Thr His Thr Gly		
485	490	495
Glu Lys Pro Tyr Glu Cys Asn Glu Cys Gly Lys Ala Phe Asn Arg Ile		
500	505	510

Ala Asn Phe Thr Glu His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr
 515 520 525
 Lys Cys Asn Glu Cys Gly Lys Ala Phe Ile Asn Tyr Ser Cys Leu Thr
 530 535 540
 Val His His Arg Met His Thr Gly Glu Lys Pro Tyr Lys Cys Thr Glu
 545 550 555 560
 Cys Gly Lys Ala Phe Met Arg Ser Ser Leu Ile Ile His Gln Cys
 565 570 575
 Ile His Thr Glu Glu Lys Pro Tyr Leu Cys Asn Glu Cys Gly Glu Ser
 580 585 590
 Phe Arg Ile Lys Ser His Leu Thr Val His Gln Arg Ile His Thr Gly
 595 600 605
 Glu Lys Pro Tyr Lys Cys Thr Asp Cys Glu Arg Ala Phe Thr Lys Met
 610 615 620
 Val Asn Leu Lys Glu His Gln Lys Ile His Thr Gly Val Lys Pro Tyr
 625 630 635 640
 Lys Cys Tyr Asp Cys Gly Lys Ser Phe Arg Thr Lys Ser Tyr Leu Ile
 645 650 655
 Val His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu
 660 665 670
 Cys Glu Lys Ala Phe Thr Asn Thr Ser Gln Leu Thr Val His Gln Arg
 675 680 685
 Arg His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val
 690 695 700
 Phe Thr Ser Asn Ser Gly Phe Asn Thr His Gln Arg Thr His Thr Gly
 705 710 715 720
 Glu Lys Pro Phe Lys Cys Asn Asp Cys Gly Lys Ala Phe Ser Gln Met
 725 730 735
 Val His Val Thr Glu His Gln Lys Ile His Ser Gly Glu Lys Pro Tyr

740	745	750
Lys Cys Asp Val Cys Gly Lys Ala Phe Arg Arg Gly Ser Tyr Leu Thr		
755	760	765
Val His Trp Arg Thr His Thr Gly Glu Lys Pro Tyr Thr Cys Lys Glu		
770	775	780
Cys Gly Lys Gly Cys Ile Thr Leu Ser Gln Leu Thr Leu His Gln Arg		
785	790	795
Ile His Thr Gly Glu Arg Pro Tyr Lys Cys Glu Glu Cys Gly Lys Ala		
805	810	815
Phe Arg Thr Asn Ser Asp Phe Thr Val His Leu Arg Met His Thr Gly		
820	825	830
Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Arg Ser Ser		
835	840	845
Ser Ser Leu Thr Val His Gln Arg Ile His Gln Arg Glu Thr Gln Leu		
850	855	860
Ile		
865		

<210> 403

<211> 547

<212> PRT

<213> Homo sapiens

<400> 403

Met Leu Glu Gly Arg Gln Thr Pro Ala Ser Thr Leu Glu Gln Asp Ala

1 5 10 15

Thr Asp Tyr Arg Leu Arg Ser Leu Arg Lys Leu Leu Ala Gln Pro Arg

20 25 30

Glu Gly Leu Leu Ala Pro Phe Ser Lys Arg Asn Ser Thr Ala Ser Phe
 35 40 45
 Pro Gly Arg Thr Ser His Ile Pro Val Gln Gln Pro Glu Lys Arg Lys
 50 55 60
 Gln Lys Pro Ser Pro Glu Pro Ser Gln Asp Ser Pro His Ser Asp Lys
 65 70 75 80
 Trp Pro Pro Gly His Pro Val Lys Asn Leu Pro Gln Met Arg Gly Pro
 85 90 95
 Arg Pro Arg Pro Ala Gly Asp Ser Pro Arg Lys Thr Gln Trp Leu Asn
 100 105 110
 Gln Val Glu Ser Tyr Ile Ala Glu Gln Arg Arg Gly Asp Arg Met Arg
 115 120 125
 Pro Gln Ala Pro Gly Arg Gly Trp His Gly Glu Glu Val Val Ala
 130 135 140
 Ala Ala Gly Gln Glu Gly Gln Val Glu Gly Glu Glu Gly Glu Glu
 145 150 155 160
 Glu Glu Glu Glu Asp Met Ser Glu Val Phe Glu Tyr Val Pro Val
 165 170 175
 Phe Asp Pro Val Val Asn Trp Asp Gln Thr Phe Ser Ala Arg Asn Leu
 180 185 190
 Asp Phe Gln Ala Leu Arg Thr Asp Trp Ile Asp Leu Ser Cys Asn Thr
 195 200 205
 Ser Gly Asn Leu Leu Pro Glu Gln Glu Ala Leu Glu Val Thr Arg
 210 215 220
 Val Phe Leu Lys Lys Leu Asn Gln Arg Ser Arg Gly Arg Tyr Gln Leu
 225 230 235 240
 Gln Arg Ile Val Asn Val Glu Lys Arg Gln Asp Gln Leu Arg Gly Gly
 245 250 255
 Arg Tyr Leu Leu Glu Leu Glu Leu Glu Gln Gly Gln Arg Val Val

260	265	270
Arg Leu Ser Glu Tyr Val Ser Ala Arg Gly Trp Gln Gly Ile Asp Pro		
275	280	285
Ala Gly Gly Glu Glu Val Glu Ala Arg Asn Leu Gln Gly Leu Val Trp		
290	295	300
Asp Pro His Asn Arg Arg Arg Gln Val Leu Asn Thr Arg Ala Gln Glu		
305	310	315
Pro Lys Leu Cys Trp Pro Gln Gly Phe Ser Trp Ser His Arg Ala Val		
325	330	335
Val His Phe Val Val Pro Val Lys Asn Gln Ala Arg Trp Val Gln Gln		
340	345	350
Phe Ile Lys Asp Met Glu Asn Leu Phe Gln Val Thr Gly Asp Pro His		
355	360	365
Phe Asn Ile Val Ile Thr Asp Tyr Ser Ser Glu Asp Met Asp Val Glu		
370	375	380
Met Ala Leu Lys Arg Ser Lys Leu Arg Ser Tyr Gln Tyr Val Lys Leu		
385	390	395
Ser Gly Asn Phe Glu Arg Ser Ala Gly Leu Gln Ala Gly Ile Asp Leu		
405	410	415
Val Lys Asp Pro His Ser Ile Ile Phe Leu Cys Asp Leu His Ile His		
420	425	430
Phe Pro Ala Gly Val Ile Asp Ala Ile Arg Lys His Cys Val Glu Gly		
435	440	445
Lys Met Ala Phe Ala Pro Met Val Met Arg Leu His Cys Gly Ala Thr		
450	455	460
Pro Gln Trp Pro Glu Gly Tyr Trp Glu Val Asn Gly Phe Gly Leu Leu		
465	470	475
Gly Ile Tyr Lys Ser Asp Leu Asp Arg Ile Gly Gly Met Asn Thr Lys		
485	490	495

Glu Phe Arg Asp Arg Trp Gly Gly Glu Asp Trp Glu Leu Leu Asp Arg
 500 505 510
 Ile Leu Gln Ala Gly Leu Asp Val Glu Arg Leu Ser Leu Arg Asn Phe
 515 520 525
 Phe His His Phe His Ser Lys Arg Gly Met Trp Ser Arg Arg Gln Met
 530 535 540
 Lys Thr Leu
 545

<210> 404
 <211> 443
 <212> PRT
 <213> Homo sapiens

<400> 404
 Met Ser Gln Arg Gln Tyr Pro Glu Cys Tyr Leu Ala Pro Asn Gly Cys
 1 5 10 15
 Leu Val Ser Asn Cys Gly Val Asn Lys Met Ser Asn Glu Glu Leu Val
 20 25 30
 Gly Gln Asn His Gly Met Glu Gly Glu Ala Cys Thr Gly Gly Asp Val
 35 40 45
 Thr Phe Ser Asp Val Ala Ile Asp Phe Ser His Glu Glu Trp Ala Cys
 50 55 60
 Leu Asp Ser Ala Gln Arg Asp Leu Tyr Lys Asp Val Met Val Gln Asn
 65 70 75 80
 Tyr Glu Asn Leu Val Ser Val Gly Leu Ser Val Thr Lys Pro Tyr Val
 85 90 95
 Ile Met Leu Leu Glu Asp Gly Lys Glu Pro Trp Met Met Glu Lys Lys

100	105	110
Leu Ser Lys Asp Trp Glu Ser Arg Trp Glu Asn Lys Glu Leu Ser Thr		
115	120	125
Lys Lys Asp Ile Tyr Asp Glu Asp Ser Pro Gln Pro Val Thr Met Glu		
130	135	140
Lys Val Val Lys Gln Ser Tyr Glu Phe Ser Asn Ser Asn Lys Asn Leu		
145	150	155
Glu Tyr Thr Glu Cys Asp Thr Phe Arg Ser Thr Phe His Ser Lys Ser		
165	170	175
Thr Leu Ser Glu Pro Gln Asn Asn Ser Ala Glu Gly Asn Ser His Lys		
180	185	190
Tyr Asp Ile Leu Lys Asn Leu Ser Lys Ser Val Ile Lys Ser		
195	200	205
Glu Arg Ile Asn Gly Gly Lys Lys Leu Leu Asn Ser Asn Lys Ser Gly		
210	215	220
Ala Ala Phe Asn Gln Ser Lys Ser Leu Thr Leu Pro Gln Thr Cys Asn		
225	230	235
Arg Glu Lys Ile Tyr Thr Cys Ser Glu Cys Gly Lys Ala Phe Gly Lys		
245	250	255
Gln Ser Ile Leu Asn Arg His Trp Arg Ile His Thr Gly Glu Lys Pro		
260	265	270
Tyr Glu Cys Arg Glu Cys Gly Lys Thr Phe Ser His Gly Ser Ser Leu		
275	280	285
Thr Arg His Gln Ile Ser His Ser Gly Glu Lys Pro Tyr Lys Cys Ile		
290	295	300
Glu Cys Gly Lys Ala Phe Ser His Gly Ser Ser Leu Thr Asn His Gln		
305	310	315
Ser Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Met Asn Cys Gly Lys		
325	330	335

Ser Phe Ser Arg Val Ser Leu Leu Ile Gln His Leu Arg Ile His Thr
 340 345 350
 Gln Glu Lys Arg Tyr Glu Cys Arg Ile Cys Gly Lys Ala Phe Ile His
 355 360 365
 Ser Ser Ser Leu Ile His His Gln Lys Ser His Thr Gly Glu Lys Pro
 370 375 380
 Tyr Glu Cys Arg Glu Cys Gly Lys Ala Phe Cys Cys Ser Ser His Leu
 385 390 395 400
 Thr Gln His Gln Arg Ile His Ser Met Lys Lys Lys Tyr Glu Cys Asn
 405 410 415
 Lys Cys Leu Lys Val Phe Ser Ser Phe Ser Phe Leu Val Gln His Gln
 420 425 430
 Ser Ile His Thr Glu Glu Lys Pro Phe Glu Val
 435 440

<210> 405

<211> 649

<212> PRT

<213> Homo sapiens

<400> 405

Met Met Trp Gln Cys His Leu Ser Ala Gln Asp Tyr Arg Tyr Tyr Pro
 1 5 10 15

Val Asp Gly Tyr Ser Leu Leu Lys Arg Phe Pro Leu His Pro Leu Thr
 20 25 30

Gly Pro Arg Cys Pro Val Gln Thr Val Gly Gln Trp Leu Glu Ser Ile
 35 40 45

Gly Leu Pro Gln Tyr Glu Asn His Leu Met Ala Asn Gly Phe Asp Asn

50	55	60
Val Gln Phe Met Gly Ser Asn Val Met Glu Asp Gln Asp Leu Leu Glu		
65	70	75
Ile Gly Ile Leu Asn Ser Gly His Arg Gln Arg Ile Leu Gln Ala Ile		
85	90	95
Gln Leu Leu Pro Lys Met Arg Pro Ile Gly His Asp Gly Tyr His Pro		
100	105	110
Thr Ser Val Ala Glu Trp Leu Asp Ser Ile Glu Leu Gly Asp Tyr Thr		
115	120	125
Lys Ala Phe Leu Ile Asn Gly Tyr Thr Ser Met Asp Leu Leu Lys Lys		
130	135	140
Ile Trp Glu Val Glu Leu Ile Asn Glu Trp Asn Ile Thr Lys Leu Ser		
145	150	155
Ile Glu Tyr Asp Ser Glu Pro Phe Gly Lys Glu Arg Asp Ala Ala Ile		
165	170	175
Lys Lys Leu Ala Thr Glu Ala Gly Val Glu Val Ile Val Arg Ile Ser		
180	185	190
His Thr Leu Tyr Asp Leu Asp Lys Ile Ile Glu Leu Asn Gly Gly Gln		
195	200	205
Pro Pro Leu Thr Tyr Lys Arg Phe Gln Thr Leu Ile Ser Lys Met Glu		
210	215	220
Pro Leu Glu Ile Pro Val Glu Thr Ile Thr Ser Glu Val Ile Glu Lys		
225	230	235
Cys Thr Thr Pro Leu Ser Asp Asp His Asp Glu Lys Tyr Gly Val Pro		
245	250	255
Ser Leu Glu Glu Leu Gly Phe Asp Thr Asp Gly Leu Ser Ser Ala Val		
260	265	270
Trp Pro Gly Gly Glu Thr Glu Ala Leu Thr Arg Leu Glu Arg His Leu		
275	280	285

Glu Arg Lys Ala Trp Val Ala Asn Phe Glu Arg Pro Arg Met Asn Ala
 290 295 300
 Asn Ser Leu Leu Ala Ser Pro Thr Gly Leu Ser Pro Tyr Leu Arg Phe
 305 310 315 320
 Gly Cys Leu Ser Cys Arg Leu Phe Tyr Phe Lys Leu Thr Asp Leu Tyr
 325 330 335
 Lys Lys Val Lys Lys Asn Ser Ser Pro Pro Leu Ser Leu Tyr Gly Gln
 340 345 350
 Leu Leu Trp Arg Glu Phe Phe Tyr Thr Ala Ala Thr Asn Asn Pro Arg
 355 360 365
 Phe Asp Lys Met Glu Gly Asn Pro Ile Cys Val Gln Ile Pro Trp Asp
 370 375 380
 Lys Asn Pro Glu Ala Leu Ala Lys Trp Ala Glu Gly Arg Thr Gly Phe
 385 390 395 400
 Pro Trp Ile Asp Ala Ile Met Thr Gln Leu Arg Gln Glu Gly Trp Ile
 405 410 415
 His His Leu Ala Arg His Ala Val Ala Cys Phe Leu Thr Arg Gly Asp
 420 425 430
 Leu Trp Ile Ser Trp Glu Glu Gly Met Lys Val Phe Glu Glu Leu Leu
 435 440 445
 Leu Asp Ala Asp Trp Ser Ile Asn Ala Gly Ser Trp Met Trp Leu Ser
 450 455 460
 Cys Ser Ser Phe Phe Gln Gln Phe Phe His Cys Tyr Cys Pro Val Gly
 465 470 475 480
 Phe Gly Arg Arg Thr Asp Pro Asn Gly Asp Tyr Ile Arg Arg Tyr Leu
 485 490 495
 Pro Val Leu Arg Gly Phe Pro Ala Lys Tyr Ile Tyr Asp Pro Trp Asn
 500 505 510
 Ala Pro Glu Gly Ile Gln Lys Val Ala Lys Cys Leu Ile Gly Val Asn

515	520	525
Tyr Pro Lys Pro Met Val Asn His Ala Glu Ala Ser Arg Leu Asn Ile		
530	535	540
Glu Arg Met Lys Gln Ile Tyr Gln Gln Leu Ser Arg Tyr Arg Gly Leu		
545	550	555
Gly Leu Leu Ala Ser Val Pro Ser Asn Pro Asn Gly Asn Gly Gly Phe		
565	570	575
Met Gly Tyr Ser Ala Glu Asn Ile Pro Gly Cys Ser Ser Gly Ser		
580	585	590
Cys Ser Gln Gly Ser Gly Ile Leu His Tyr Ala His Gly Asp Ser Gln		
595	600	605
Gln Thr His Leu Leu Lys Gln Gly Arg Ser Ser Met Gly Thr Gly Leu		
610	615	620
Ser Gly Gly Lys Arg Pro Ser Gln Glu Glu Asp Thr Gln Ser Ile Gly		
625	630	635
640		
Pro Lys Val Gln Arg Gln Ser Thr Asn		
645		

<210> 406

<211> 337

<212> PRT

<213> Homo sapiens

<400> 406

Met Pro Gly Leu Pro Cys Pro Ala Leu Pro Cys Pro Ala Pro Pro Pro			
1	5	10	15
Ala Pro Ser Cys Leu Ile Ala Met Ala Leu Lys Asn Ser Lys Thr Gly			
20	25	30	

Ser Leu Pro Val Ser Glu Ile Tyr Ser Phe Met Lys Glu His Phe Pro
 35 40 45
 Tyr Phe Lys Thr Ala Pro Asp Gly Trp Lys Asn Ser Val Arg His Asn
 50 55 60
 Leu Ser Leu Asn Lys Cys Phe Glu Lys Val Glu Asn Lys Met Ser Gly
 65 70 75 80
 Ser Ser Arg Lys Gly Cys Leu Trp Ala Leu Asn Leu Ala Arg Ile Asp
 85 90 95
 Lys Met Glu Glu Met His Lys Trp Lys Arg Lys Asp Leu Ala Ala
 100 105 110
 Ile His Arg Ser Met Ala Asn Pro Glu Glu Leu Asp Lys Leu Ile Ser
 115 120 125
 Asp Arg Pro Glu Ser Cys Arg Arg Pro Gly Lys Pro Gly Glu Pro Glu
 130 135 140
 Ala Pro Val Leu Thr His Ala Thr Thr Val Ala Val Ala His Gly Cys
 145 150 155 160
 Leu Ala Val Ser Gln Leu Pro Pro Gln Pro Leu Met Thr Leu Ser Leu
 165 170 175
 Gln Ser Val Pro Leu His His Gln Val Gln Pro Gln Ala His Leu Ala
 180 185 190
 Pro Asp Ser Pro Ala Pro Ala Gln Thr Pro Pro Leu His Ala Leu Pro
 195 200 205
 Asp Leu Ser Pro Ser Pro Leu Pro His Pro Ala Met Gly Arg Ala Pro
 210 215 220
 Val Asp Phe Ile Asn Ile Ser Thr Asp Met Asn Thr Glu Val Asp Ala
 225 230 235 240
 Leu Asp Pro Ser Ile Met Asp Phe Ala Leu Gln Gly Asn Leu Trp Glu
 245 250 255
 Glu Met Lys Asp Glu Gly Phe Ser Leu Asp Thr Leu Gly Ala Phe Ala

260	265	270
Asp Ser Pro Leu Gly Cys Asp Leu Gly Ala Ser Gly Leu Thr Pro Ala		
275	280	285
Ser Gly Gly Ser Asp Gln Ser Phe Pro Asp Leu Gln Val Thr Gly Leu		
290	295	300
Tyr Thr Ala Tyr Ser Thr Pro Asp Ser Val Ala Ala Ser Gly Thr Ser		
305	310	315
Ser Ser Ser Gln Tyr Leu Gly Ala Gln Gly Asn Lys Pro Ile Ala Leu		
325	330	335
Leu		

<210> 407

<211> 594

<212> PRT

<213> Homo sapiens

<400> 407

Met Glu Cys Tyr Tyr Ile Val Ile Ser Ser Thr His Leu Ser Asn Gly			
1	5	10	15
His Phe Arg Asn Ile Lys Gly Val Phe Arg Gly Pro Leu Ser Lys Asn			
20	25	30	
Gly Asn Lys Thr Leu Asp Tyr Ala Glu Lys Glu Asn Thr Ile Ala Lys			
35	40	45	
Ala Leu Glu Asp Leu Lys Ala Asn Phe Tyr Cys Glu Leu Cys Asp Lys			
50	55	60	
Gln Tyr Tyr Lys His Gln Glu Phe Asp Asn His Ile Asn Ser Tyr Asp			
65	70	75	80

His Ala His Lys Gln Arg Leu Lys Glu Leu Lys Gln Arg Glu Phe Ala
 85 90 95
 Arg Asn Val Ala Ser Lys Ser Arg Lys Asp Glu Arg Lys Gln Glu Lys
 100 105 110
 Ala Leu Gln Arg Leu His Lys Leu Ala Glu Leu Arg Lys Glu Thr Val
 115 120 125
 Cys Ala Pro Gly Ser Gly Pro Met Phe Lys Ser Thr Thr Val Thr Val
 130 135 140
 Arg Glu Asn Cys Asn Glu Ile Ser Gln Arg Val Val Val Asp Ser Val
 145 150 155 160
 Asn Asn Gln Gln Asp Phe Lys Tyr Thr Leu Ile His Ser Glu Glu Asn
 165 170 175
 Thr Lys Asp Ala Thr Thr Val Ala Glu Asp Pro Glu Ser Ala Asn Asn
 180 185 190
 Tyr Thr Ala Lys Asn Asn Gln Val Gly Asp Gln Ala Gln Gly Ile His
 195 200 205
 Arg His Lys Ile Gly Phe Ser Phe Ala Phe Pro Lys Lys Ala Ser Val
 210 215 220
 Lys Leu Glu Ser Ser Ala Ala Ala Phe Ser Glu Tyr Ser Asp Asp Ala
 225 230 235 240
 Ser Val Gly Lys Gly Phe Ser Arg Lys Ser Arg Phe Val Pro Ser Ala
 245 250 255
 Cys His Leu Gln Leu Ser Ser Pro Thr Asp Val Leu Leu Ser Ser Glu
 260 265 270
 Glu Lys Thr Asn Ser Phe His Pro Pro Glu Ala Met Cys Arg Asp Lys
 275 280 285
 Glu Thr Val Gln Thr Gln Glu Ile Lys Glu Val Ser Ser Glu Lys Asp
 290 295 300
 Ala Leu Leu Leu Pro Ser Phe Cys Lys Phe Gln Leu Gln Leu Ser Ser

305	310	315	320
Asp Ala Asp Asn Cys Gln Asn Ser Val Pro Leu Ala Asp Gln Ile Pro			
325	330	335	
Leu Glu Ser Val Val Ile Asn Glu Asp Ile Pro Val Ser Gly Asn Ser			
340	345	350	
Phe Glu Leu Leu Gly Asn Lys Ser Thr Val Leu Asp Met Ser Asn Asp			
355	360	365	
Cys Ile Ser Val Gln Ala Thr Thr Glu Glu Asn Val Lys His Asn Glu			
370	375	380	
Ala Ser Thr Thr Glu Val Glu Asn Lys Asn Gly Pro Glu Thr Leu Ala			
385	390	395	400
Pro Ser Asn Thr Glu Glu Val Asn Ile Thr Ile His Lys Lys Thr Asn			
405	410	415	
Phe Cys Lys Arg Gln Cys Glu Pro Phe Val Pro Val Leu Asn Lys His			
420	425	430	
Arg Ser Thr Val Leu Gln Trp Pro Ser Glu Met Leu Val Tyr Thr Thr			
435	440	445	
Thr Lys Pro Ser Ile Ser Tyr Ser Cys Asn Pro Leu Cys Phe Asp Phe			
450	455	460	
Lys Ser Thr Lys Val Asn Asn Asn Leu Asp Lys Asn Lys Pro Asp Leu			
465	470	475	480
Lys Asp Leu Cys Ser Gln Gln Lys Gln Glu Asp Ile Cys Met Gly Pro			
485	490	495	
Leu Ser Asp Tyr Lys Asp Val Ser Thr Glu Gly Leu Thr Asp Tyr Glu			
500	505	510	
Ile Gly Ser Ser Lys Asn Lys Cys Ser Gln Val Thr Pro Leu Leu Ala			
515	520	525	
Asp Asp Ile Leu Ser Ser Cys Asp Ser Gly Lys Asn Lys Asn Thr			
530	535	540	

Gly Gln Arg Tyr Lys Asn Ile Ser Cys Lys Ile Arg Glu Thr Glu Lys
 545 550 555 560
 Tyr Asn Phe Thr Lys Ser Gln Ile Lys Gln Asp Thr Leu Asp Glu Lys
 565 570 575
 Tyr Asn Lys Ile Arg Leu Lys Glu Thr His Glu Tyr Trp Phe His Lys
 580 585 590
 Ser Arg

<210> 408

<211> 118

<212> PRT

<213> Homo sapiens

<400> 408

Met Ile Thr Phe Tyr Phe Leu Phe Leu Phe Ser Phe Leu Ser Phe Phe
 1 5 10 15

Phe Phe Phe Phe Glu Thr Glu Phe Cys Ser Ser Cys Pro Gly Trp
 20 25 30

Ser Asn Gly Thr Ile Leu Ala His Arg Asn Leu His Leu Pro Gly Ser
 35 40 45

Ser Asp Ser Pro Pro Ser Ala Phe Pro Ser Ser Trp Asp Tyr Arg His
 50 55 60

Ala Pro Pro Ser Pro Ala Asn Phe Val Phe Leu Val Asp Met Gly Leu
 65 70 75 80

Leu His Val Gly Gln Ala Gly Leu Glu Leu Pro Thr Ser Gly Asp Pro
 85 90 95

Pro Thr Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Val Ser His Cys

100

105

110

Ala Arg Pro Leu Phe Ser

115

<210> 409

<211> 491

<212> PRT

<213> Homo sapiens

<400> 409

Met Ala Tyr Leu Tyr Ser Ser Asp Ala Phe Leu Glu Gly Tyr Val Gln

1

5

10

15

Gln Phe Leu Tyr Thr Phe Arg Tyr Phe Cys Thr Pro His Asp Phe Leu

20

25

30

His Phe Leu Leu Asp Arg Ile Asn Ser Thr Leu Thr Arg Ala His Gln

35

40

45

Asp Pro Thr Ser Thr Phe Thr Lys Ile Tyr Arg Arg Ser Leu Cys Val

50

55

60

Leu Gln Ala Trp Val Glu Asp Cys Tyr Ala Val Asp Phe Pro Arg Asn

65

70

75

80

Ser Gly Leu Leu Gly Lys Leu Glu Asp Phe Ile Ser Ser Lys Ile Leu

85

90

95

Pro Leu Asp Gly Ser Ala Lys His Leu Leu Gly Leu Leu Glu Val Gly

100

105

110

Met Asp Arg Arg Ala Glu Gly Asn Pro Arg Gly Thr Asp Leu Glu Asn

115

120

125

Pro Arg Glu Ala Glu Glu Asp Ala Arg Pro Phe Asn Ala Leu Cys Lys

130

135

140

Arg Leu Ser Glu Asp Gly Ile Ser Arg Lys Ser Phe Pro Trp Arg Leu
 145 150 155 160
 Pro Arg Gly Asn Gly Leu Val Leu Pro Pro His Lys Glu Arg Pro Tyr
 165 170 175
 Thr Ile Ala Ala Ala Leu Pro Lys Pro Cys Phe Leu Glu Asp Phe Tyr
 180 185 190
 Gly Pro Cys Ala Lys Thr Ser Glu Lys Gly Pro Tyr Phe Leu Thr Glu
 195 200 205
 Tyr Ser Thr His Gln Leu Phe Ser Gln Leu Thr Leu Leu Gln Gln Glu
 210 215 220
 Leu Phe Gln Lys Cys His Pro Val His Phe Leu Asn Ser Arg Ala Leu
 225 230 235 240
 Gly Val Met Asp Lys Ser Thr Ala Ile Pro Lys Ala Ser Ser Ser Glu
 245 250 255
 Ser Leu Ser Ala Lys Thr Cys Ser Leu Phe Leu Pro Asn Tyr Val Gln
 260 265 270
 Asp Lys Tyr Leu Leu Gln Leu Leu Arg Asn Ala Asp Asp Val Ser Thr
 275 280 285
 Trp Val Ala Ala Glu Ile Val Thr Ser His Thr Ser Lys Leu Gln Val
 290 295 300
 Asn Leu Leu Ser Lys Phe Leu Leu Ile Ala Lys Ser Cys Tyr Glu Gln
 305 310 315 320
 Arg Asn Phe Ala Thr Ala Met Gln Ile Leu Ser Gly Leu Glu His Leu
 325 330 335
 Ala Val Arg Gln Ser Pro Ala Trp Arg Ile Leu Pro Ala Lys Ile Ala
 340 345 350
 Glu Val Met Glu Glu Leu Lys Ala Val Glu Val Phe Leu Lys Ser Asp
 355 360 365
 Ser Leu Cys Leu Met Glu Gly Arg Arg Phe Arg Ala Gln Pro Thr Leu

370	375	380	
Pro Ser Ala His Leu Leu Ala Met His Ile Gln Gln Leu Glu Thr Gly			
385	390	395	400
Gly Phe Thr Met Thr Asn Gly Ala His Arg Trp Ser Lys Leu Arg Asn			
405	410	415	
Ile Ala Lys Val Val Ser Gln Val His Ala Phe Gln Glu Asn Pro Tyr			
420	425	430	
Thr Phe Ser Pro Asp Pro Lys Leu Gln Ser Tyr Leu Lys Gln Arg Ile			
435	440	445	
Ala Arg Phe Ser Gly Ala Asp Ile Ser Thr Leu Ala Ala Asp Ser Arg			
450	455	460	
Ala Asn Phe His Gln Val Ser Ser Glu Lys His Ser Arg Lys Ile Gln			
465	470	475	480
Asp Lys Leu Arg Arg Met Lys Ala Thr Phe Gln			
485	490		

<210> 410

<211> 415

<212> PRT

<213> Homo sapiens

<400> 410

Met Val Ala Tyr Ser Val Gln Val Leu Ala Val Phe Ile Ser Cys Ala

1 5 10 15

Ile Leu Thr Leu Ala Met Lys Ile Ala Trp Ile Phe Gly Leu Asn Ser

20 25 30

Val Gln Asn Ile Thr Ala Asn Leu Ser Val Asp Gly Ser Thr Ser Gly

35 40 45

Asn Pro Ile Gln Lys Trp Lys Arg Lys Ile Asp Ala Asn Cys Thr Ala
 50 55 60
 Arg Leu Arg Thr Leu Asn Phe Phe Ala Met Ser Gly Lys Val Lys
 65 70 75 80
 Asp Gly Thr Pro Cys Ser Pro Asn Lys Asn Asp Val Cys Ile Asp Gly
 85 90 95
 Val Cys Glu Leu Val Gly Cys Asp His Glu Leu Gly Ser Lys Ala Val
 100 105 110
 Ser Asp Ala Cys Gly Val Cys Lys Gly Asp Asn Ser Thr Cys Lys Phe
 115 120 125
 Tyr Lys Gly Leu Tyr Leu Asn Gln His Lys Ala Asn Glu Tyr Tyr Pro
 130 135 140
 Val Val Leu Ile Pro Ala Gly Ala Arg Ser Ile Glu Ile Gln Glu Leu
 145 150 155 160
 Gln Val Ser Ser Tyr Leu Ala Val Arg Ser Leu Ser Gln Lys His
 165 170 175
 Tyr Leu Thr Gly Gly Trp Ser Ile Asp Trp Pro Gly Glu Phe Pro Phe
 180 185 190
 Ala Gly Thr Thr Phe Glu Tyr Gln Arg Ser Phe Asn Arg Pro Glu Arg
 195 200 205
 Leu Tyr Ala Pro Gly Pro Thr Asn Glu Thr Leu Val Phe Glu Ile Leu
 210 215 220
 Met Gln Gly Lys Asn Pro Gly Ile Ala Trp Lys Tyr Ala Leu Pro Lys
 225 230 235 240
 Val Met Asn Gly Thr Pro Pro Ala Thr Lys Arg Pro Ala Tyr Thr Trp
 245 250 255
 Ser Ile Val Gln Ser Glu Cys Ser Val Ser Cys Gly Gly Tyr Ile
 260 265 270
 Asn Val Lys Ala Ile Cys Leu Arg Asp Gln Asn Thr Gln Val Asn Ser

275

280

285

Ser Phe Cys Ser Ala Lys Thr Lys Pro Val Thr Glu Pro Lys Ile Cys

290

295

300

Asn Arg Arg Ala Cys Pro Ala His Pro Val Tyr Asn Met Val Ala Gly

305

310

315

320

Trp Tyr Ser Leu Pro Trp Gln Gln Cys Thr Val Thr Cys Gly Gly Gly

325

330

335

Val Gln Thr Arg Ser Val His Cys Val Gln Gln Gly Arg Pro Ser Ser

340

345

350

Ser Cys Leu Leu His Gln Lys Pro Pro Val Leu Arg Ala Cys Asn Thr

355

360

365

Asn Phe Cys Pro Ala Pro Glu Lys Arg Glu Asp Pro Ser Cys Val Asp

370

375

380

Phe Phe Asn Trp Cys His Leu Val Pro Gln His Gly Val Cys Asn His

385

390

395

400

Lys Phe Tyr Gly Lys Gln Cys Cys Lys Ser Cys Thr Arg Lys Ile

405

410

415

<210> 411

<211> 974

<212> PRT

<213> Homo sapiens

<400> 411

Met Arg Arg Ala Gly Ile Gly Glu Asp Ser Arg Leu Gly Leu Gln Ala

1

5

10

15

Gln Pro Gly Ala Glu Pro Ser Pro Gly Arg Ala Gly Thr Glu Arg Ser

20

25

30

Leu Gly Gly Ala Gln Gly Pro Gly Gln Pro Cys Ser Cys Pro Gly Ala
 35 40 45
 Met Ala Ser Ala Val Arg Gly Ser Arg Pro Trp Pro Arg Leu Gly Leu
 50 55 60
 Gln Leu Gln Phe Ala Ala Leu Leu Gly Thr Leu Ser Pro Gln Val
 65 70 75 80
 His Thr Leu Arg Pro Glu Asn Leu Leu Leu Val Ser Thr Leu Asp Gly
 85 90 95
 Ser Leu His Ala Leu Ser Lys Gln Thr Gly Asp Leu Lys Trp Thr Leu
 100 105 110
 Arg Asp Asp Pro Val Ile Glu Gly Pro Met Tyr Val Thr Glu Met Ala
 115 120 125
 Phe Leu Ser Asp Pro Ala Asp Gly Ser Leu Tyr Ile Leu Gly Thr Gln
 130 135 140
 Lys Gln Gln Gly Leu Met Lys Leu Pro Phe Thr Ile Pro Glu Leu Val
 145 150 155 160
 His Ala Ser Pro Cys Arg Ser Ser Asp Gly Val Phe Tyr Thr Gly Arg
 165 170 175
 Lys Gln Asp Ala Trp Phe Val Val Asp Pro Glu Ser Gly Glu Thr Gln
 180 185 190
 Met Thr Leu Thr Thr Glu Gly Pro Ser Thr Pro Arg Leu Tyr Ile Gly
 195 200 205
 Arg Thr Gln Tyr Thr Val Thr Met His Asp Pro Arg Ala Pro Ala Leu
 210 215 220
 Arg Trp Asn Thr Thr Tyr Arg Arg Tyr Ser Ala Pro Pro Met Asp Gly
 225 230 235 240
 Ser Pro Gly Lys Tyr Met Ser His Leu Ala Ser Cys Gly Met Gly Leu
 245 250 255
 Leu Leu Thr Val Asp Pro Gly Ser Gly Thr Val Leu Trp Thr Gln Asp

260	265	270
Leu Gly Val Pro Val Met Gly Val Tyr Thr Trp His Gln Asp Gly Leu		
275	280	285
Arg Gln Leu Pro His Leu Thr Leu Ala Arg Asp Thr Leu His Phe Leu		
290	295	300
Ala Leu Arg Trp Gly His Ile Arg Leu Pro Ala Ser Gly Pro Arg Asp		
305	310	315
Thr Ala Thr Leu Phe Ser Thr Leu Asp Thr Gln Leu Leu Met Thr Leu		
325	330	335
Tyr Val Gly Lys Asp Glu Thr Gly Phe Tyr Val Ser Lys Ala Leu Val		
340	345	350
His Thr Gly Val Ala Leu Val Pro Arg Gly Leu Thr Leu Ala Pro Ala		
355	360	365
Asp Gly Pro Thr Thr Asp Glu Val Thr Leu Gln Val Ser Gly Glu Arg		
370	375	380
Glu Gly Ser Pro Ser Thr Ala Val Arg Tyr Pro Ser Gly Ser Val Ala		
385	390	395
Leu Pro Ser Gln Trp Leu Leu Ile Gly His His Glu Leu Pro Pro Val		
405	410	415
Leu His Thr Thr Met Leu Arg Val His Pro Thr Leu Gly Ser Gly Thr		
420	425	430
Ala Glu Thr Arg Pro Pro Glu Asn Thr Gln Ala Pro Ala Phe Phe Leu		
435	440	445
Glu Leu Leu Ser Leu Ser Arg Glu Lys Leu Trp Asp Ser Glu Leu His		
450	455	460
Pro Glu Glu Lys Thr Pro Asp Ser Tyr Leu Gly Leu Gly Pro Gln Asp		
465	470	475
Leu Leu Ala Ala Ser Leu Thr Ala Val Leu Leu Gly Gly Trp Ile Leu		
485	490	495

Phe Val Met Arg Gln Gln Gln Pro Gln Val Val Glu Lys Gln Gln Glu
 500 505 510
 Thr Pro Leu Ala Pro Ala Asp Phe Ala His Ile Ser Gln Asp Ala Gln
 515 520 525
 Ser Leu His Ser Gly Ala Ser Arg Arg Ser Gln Lys Arg Leu Gln Ser
 530 535 540
 Pro Ser Lys Gln Ala Gln Pro Leu Asp Asp Pro Glu Ala Glu Gln Leu
 545 550 555 560
 Thr Val Val Gly Lys Ile Ser Phe Asn Pro Lys Asp Val Leu Gly Arg
 565 570 575
 Gly Ala Gly Gly Thr Phe Val Phe Arg Gly Gln Phe Glu Gly Arg Ala
 580 585 590
 Val Ala Val Lys Arg Leu Leu Arg Glu Cys Phe Gly Leu Val Arg Arg
 595 600 605
 Glu Val Gln Leu Leu Gln Glu Ser Asp Arg His Pro Asn Val Leu Arg
 610 615 620
 Tyr Phe Cys Thr Glu Arg Gly Pro Gln Phe His Tyr Ile Ala Leu Glu
 625 630 635 640
 Leu Cys Arg Ala Ser Leu Gln Glu Tyr Val Glu Asn Pro Asp Leu Asp
 645 650 655
 Arg Gly Gly Leu Glu Pro Glu Val Val Leu Gln Gln Leu Met Ser Gly
 660 665 670
 Leu Ala His Leu His Ser Leu His Ile Val His Arg Asp Leu Lys Pro
 675 680 685
 Gly Asn Ile Leu Ile Thr Gly Pro Asp Ser Gln Gly Leu Gly Arg Val
 690 695 700
 Val Leu Ser Asp Phe Gly Leu Cys Lys Lys Leu Pro Ala Gly Arg Cys
 705 710 715 720
 Ser Phe Ser Leu His Ser Gly Ile Pro Gly Thr Glu Gly Trp Met Ala

725	730	735
Pro Glu Leu Leu Gln Leu Leu Pro Pro Asp Ser Pro Thr Ser Ala Val		
740	745	750
Asp Ile Phe Ser Ala Gly Cys Val Phe Tyr Tyr Val Leu Ser Gly Gly		
755	760	765
Ser His Pro Phe Gly Asp Ser Leu Tyr Arg Gln Ala Asn Ile Leu Thr		
770	775	780
Gly Ala Pro Cys Leu Ala His Leu Glu Glu Glu Val His Asp Lys Val		
785	790	795
Val Ala Arg Asp Leu Val Gly Ala Met Leu Ser Pro Leu Pro Gln Pro		
805	810	815
Arg Pro Ser Ala Pro Gln Val Leu Ala His Pro Phe Phe Trp Ser Arg		
820	825	830
Ala Lys Gln Leu Gln Phe Phe Gln Asp Val Ser Asp Trp Leu Glu Lys		
835	840	845
Glu Ser Glu Gln Glu Pro Leu Val Arg Ala Leu Glu Ala Gly Gly Cys		
850	855	860
Ala Val Val Arg Asp Asn Trp His Glu His Ile Ser Met Pro Leu Gln		
865	870	875
Thr Asp Leu Arg Lys Phe Arg Ser Tyr Lys Gly Thr Ser Val Arg Asp		
885	890	895
Leu Leu Arg Ala Val Arg Asn Lys Lys His His Tyr Arg Glu Leu Pro		
900	905	910
Val Glu Val Arg Gln Ala Leu Gly Gln Val Pro Asp Gly Phe Val Gln		
915	920	925
Tyr Phe Thr Asn Arg Phe Pro Arg Leu Leu Leu His Thr His Arg Ala		
930	935	940
Met Arg Ser Cys Ala Ser Glu Ser Leu Phe Leu Pro Tyr Tyr Pro Pro		
945	950	955
960		

Asp Ser Glu Ala Arg Arg Pro Cys Pro Gly Ala Thr Gly Arg

965

970

<210> 412

<211> 794

<212> PRT

<213> Homo sapiens

<400> 412

Met Glu Gly Ser Leu Ala Gly Ser Leu Ala Ala Pro Asp Arg Pro Gln

1

5

10

15

Gly Pro Glu Arg Leu Pro Gly Pro Ala Pro Arg Glu Asn Ile Glu Gly

20

25

30

Gly Ala Glu Ala Ala Glu Gly Glu Gly Ile Phe Arg Ser Thr Arg

35

40

45

Tyr Leu Pro Val Thr Lys Glu Gly Pro Arg Asp Ile Leu Asp Gly Arg

50

55

60

Gly Gly Ile Ser Val Ala Asn Phe Asp Pro Gly Thr Phe Ser Leu Met

65

70

75

80

Arg Cys Asp Phe Cys Gly Ala Gly Phe Asp Thr Arg Ala Gly Leu Ser

85

90

95

Ser His Ala Arg Ala His Leu Arg Asp Phe Gly Ile Thr Asn Trp Glu

100

105

110

Leu Thr Val Ser Pro Ile Asn Ile Leu Gln Glu Leu Leu Ala Thr Ser

115

120

125

Ala Ala Glu Gln Pro Pro Ser Pro Leu Gly Arg Glu Pro Gly Pro

130

135

140

Pro Gly Ser Phe Leu Thr Ser Arg Arg Pro Arg Leu Pro Leu Thr Val

145	150	155	160
Pro Phe Pro Pro Thr Trp Ala Glu Asp Pro Gly Pro Ala Tyr Gly Asp			
165	170	175	
Ala Ser Gly Pro Glu Pro Ala Arg Asp Ile Arg Cys Glu Phe Cys Gly			
180	185	190	
Glu Phe Phe Glu Asn Arg Lys Gly Leu Ser Ser His Ala Arg Ser His			
195	200	205	
Leu Arg Gln Met Gly Val Thr Glu Trp Tyr Val Asn Gly Ser Pro Ile			
210	215	220	
Asp Thr Leu Arg Glu Ile Leu Lys Arg Arg Thr Gln Ser Arg Pro Gly			
225	230	235	240
Gly Pro Pro Asn Pro Pro Gly Pro Ser Pro Lys Ala Leu Ala Lys Met			
245	250	255	
Met Gly Gly Ala Gly Pro Gly Ser Ser Leu Glu Ala Arg Ser Pro Ser			
260	265	270	
Asp Leu His Ile Ser Pro Leu Ala Lys Leu Pro Pro Pro Pro Gly			
275	280	285	
Ser Pro Leu Gly His Ser Pro Thr Ala Ser Pro Pro Pro Thr Ala Arg			
290	295	300	
Lys Met Phe Pro Gly Leu Ala Ala Pro Ser Leu Pro Lys Lys Leu Lys			
305	310	315	320
Pro Glu Gln Ile Arg Val Glu Ile Lys Arg Glu Met Leu Pro Gly Ala			
325	330	335	
Leu His Gly Glu Leu His Pro Ser Glu Gly Pro Trp Gly Ala Pro Arg			
340	345	350	
Glu Asp Met Thr Pro Leu Asn Leu Ser Ser Arg Ala Glu Pro Val Arg			
355	360	365	
Asp Ile Arg Cys Glu Phe Cys Gly Glu Phe Phe Glu Asn Arg Lys Gly			
370	375	380	

Leu Ser Ser His Ala Arg Ser His Leu Arg Gln Met Gly Val Thr Glu
 385 390 395 400
 Trp Ser Val Asn Gly Ser Pro Ile Asp Thr Leu Arg Glu Ile Leu Lys
 405 410 415
 Lys Lys Ser Lys Pro Cys Leu Ile Lys Lys Glu Pro Pro Ala Gly Asp
 420 425 430
 Leu Ala Pro Ala Leu Ala Glu Asp Gly Pro Pro Thr Val Ala Pro Gly
 435 440 445
 Pro Val Gln Ser Pro Leu Pro Leu Ser Pro Leu Ala Gly Arg Pro Gly
 450 455 460
 Lys Pro Gly Ala Gly Pro Ala Gln Val Pro Arg Glu Leu Ser Leu Thr
 465 470 475 480
 Pro Ile Thr Gly Ala Lys Pro Ser Ala Thr Gly Tyr Leu Gly Ser Val
 485 490 495
 Ala Ala Lys Arg Pro Leu Gln Glu Asp Arg Leu Leu Pro Ala Glu Val
 500 505 510
 Lys Ala Lys Ala Tyr Ile Gln Thr Glu Leu Pro Phe Lys Ala Lys Thr
 515 520 525
 Leu His Glu Lys Thr Ser His Ser Ser Thr Glu Ala Cys Cys Glu Leu
 530 535 540
 Cys Gly Leu Tyr Phe Glu Asn Arg Lys Ala Leu Ala Ser His Ala Arg
 545 550 555 560
 Ala His Leu Arg Gln Phe Gly Val Thr Glu Trp Cys Val Asn Gly Ser
 565 570 575
 Pro Ile Glu Thr Leu Ser Glu Trp Ile Lys His Arg Pro Gln Lys Val
 580 585 590
 Gly Ala Tyr Arg Ser Tyr Ile Gln Gly Gly Arg Pro Phe Thr Lys Lys
 595 600 605
 Phe Arg Ser Ala Gly His Gly Arg Asp Ser Asp Lys Arg Pro Ser Leu

610	615	620
Gly Leu Ala Pro Gly	Gly Leu Ala Val Val	Gly Arg Ser Ala Gly Gly
625	630	635
Glu Pro Gly Pro Glu Ala Gly Arg Ala Ala Asp	Gly Gly Glu Arg Pro	
645	650	655
Leu Ala Ala Ser Pro Pro Gly Thr Val Lys Ala Glu	Glu His Gln Arg	
660	665	670
Gln Asn Ile Asn Lys Phe Glu Arg Arg Gln Ala Arg	Pro Pro Asp Ala	
675	680	685
Ser Ala Ala Arg Gly Gly Glu Asp Thr Asn Asp Leu	Gln Gln Lys Leu	
690	695	700
Glu Glu Val Arg Gln Pro Pro Pro Arg Val Arg Pro	Val Pro Ser Leu	
705	710	715
Val Pro Arg Pro Pro Gln Thr Ser Leu Val Lys Phe	Val Gly Asn Ile	
725	730	735
Tyr Thr Leu Lys Cys Arg Phe Cys Glu Val Glu Phe	Gln Gly Pro Leu	
740	745	750
Ser Ile Gln Glu Glu Trp Val Arg His Leu Gln Arg	His Ile Leu Glu	
755	760	765
Met Asn Phe Ser Lys Ala Asp Pro Pro Glu Glu Ser	Gln Ala Pro	
770	775	780
Gln Ala Gln Thr Ala Ala Ala Glu Ala Pro		
785	790	

<210> 413

<211> 692

<212> PRT

<213> Homo sapiens

<400> 413

Met Lys Glu Phe Leu Ser Thr Ala Gln Gly Asn Arg Glu Val Phe His
 1 5 10 15

Ala Gly Thr Leu Gln Ile His Glu Ser His His Asn Gly Asp Phe Cys
 20 25 30

Tyr Gln Asp Val Asp Lys Asp Ile His Asp Tyr Glu Phe Gln Trp Gln
 35 40 45

Glu Asp Glu Arg Asn Gly His Glu Ala Pro Met Thr Lys Ile Lys Lys
 50 55 60

Leu Thr Gly Ser Thr Glu Arg Tyr Asp Gln Ser His Ala Arg Asn Lys
 65 70 75 80

Pro Ile Lys Asp Gln Leu Gly Ser Ser Phe His Ser His Leu Pro Glu
 85 90 95

Met His Ile Phe Gln Thr Glu Glu Lys Ile Asp Asn Gln Val Val Lys
 100 105 110

Ser Ile His Asp Ala Ser Leu Val Ser Thr Ala Gln Arg Ile Ser Cys
 115 120 125

Arg Pro Lys Thr His Ile Ser Asn Asn His Gly Asn Asn Phe Trp Asn
 130 135 140

Ser Ser Leu Leu Thr Gln Lys Gln Glu Val His Met Arg Glu Lys Ser
 145 150 155 160

Phe Gln Cys Asn Glu Ser Gly Lys Ala Phe Asn Tyr Ser Ser Leu Leu
 165 170 175

Arg Lys His Gln Ile Ile His Leu Ala Asp Lys Tyr Lys Cys Asp Val
 180 185 190

Cys Gly Lys Leu Phe Asn Gln Lys Arg Asn Leu Ala Cys His Arg Arg
 195 200 205

Cys His Thr Gly Glu Asn Pro Tyr Lys Cys Asn Glu Cys Gly Lys Thr

210	215	220
Phe Ser Gln Thr Ser Ser Leu Thr Cys His Arg Arg Leu His Thr Gly		
225	230	235
Glu Lys Pro Tyr Lys Cys Glu Glu Cys Asp Lys Ala Phe His Phe Lys		
245	250	255
Ser Ile Leu Glu Arg His Ser Ile Ile His Thr Glu Glu Lys Pro Tyr		
260	265	270
Lys Cys Asn Glu Cys Gly Lys Thr Phe Arg Gln Lys Ser Ile Leu Thr		
275	280	285
Arg His His Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu		
290	295	300
Cys Gly Lys Thr Phe Ser His Lys Ser Ser Leu Thr Cys His His Arg		
305	310	315
Leu His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Thr		
325	330	335
Phe Ser His Lys Ser Ser Leu Thr Cys His Arg Arg Leu His Thr Gly		
340	345	350
Glu Lys Pro Tyr Lys Cys Glu Glu Cys Asp Lys Ala Tyr Ser Phe Arg		
355	360	365
Ser Asn Phe Glu Ile His Arg Lys Ile His Thr Glu Asp Asn Ala Tyr		
370	375	380
Lys Cys Asn Glu Cys Gly Lys Thr Phe Ser Arg Thr Ser Ser Leu Thr		
385	390	395
Cys His Arg Arg Arg His Thr Gly Glu Gln Pro Tyr Lys Cys Glu Glu		
405	410	415
Cys Asp Lys Ala Phe Arg Phe Lys Ser Asn Leu Glu Arg His Arg Arg		
420	425	430
Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Thr		
435	440	445

Phe Ser Arg Lys Ser Tyr Leu Thr Cys His His Arg Leu His Thr Gly
 450 455 460
 Glu Lys Ala Tyr Lys Cys Asn Glu Cys Gly Lys Thr Phe Ser Trp Lys
 465 470 475 480
 Ser Ser Leu Thr Cys His Arg Arg Leu His Ser Gly Glu Lys Pro Tyr
 485 490 495
 Lys Cys Lys Glu Cys Gly Lys Thr Phe Asn Gln Gln Leu Thr Leu Lys
 500 505 510
 Arg His Arg Arg Leu His Ser Gly Glu Asn Pro Tyr Lys Cys Glu Asp
 515 520 525
 Ser Asp Lys Ala Tyr Ser Phe Lys Ser Asn Leu Glu Ile His Gln Lys
 530 535 540
 Ile His Thr Glu Glu Asn Pro Tyr Lys Cys Asn Glu Cys Gly Lys Thr
 545 550 555 560
 Phe Ser Arg Thr Ser Ser Leu Thr Cys His Arg Arg Leu His Thr Gly
 565 570 575
 Glu Lys Pro Tyr Lys Cys Glu Cys Asp Lys Ala Phe Arg Val Lys
 580 585 590
 Ser Asn Leu Glu Gly His Arg Arg Ile His Thr Gly Glu Lys Pro Tyr
 595 600 605
 Lys Cys Asn Glu Cys Gly Lys Thr Phe Ser Arg Lys Ser Tyr Phe Ile
 610 615 620
 Cys His His Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu
 625 630 635 640
 Cys Gly Lys Asn Phe Ser Gln Lys Ser Ser Leu Ile Cys His His Arg
 645 650 655
 Leu His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Thr
 660 665 670
 Phe Ser Gln Lys Ser Asn Leu Thr Cys His Arg Arg Leu His Thr Gly

675

680

685

Glu Lys Gln Val

690

<210> 414

<211> 872

<212> PRT

<213> Homo sapiens

<400> 414

Met Gly Ile Val Trp Ile Leu Met Ser Val Leu Pro Trp Trp Gly Arg

1

5

10

15

Cys Ala Asp Leu Ala Ile Ala Ser Thr Gln Leu Val Pro Ser Thr Ala

20

25

30

Ser Ala Arg Met Ala Leu Ser Ser Gln Leu Met Gly Arg Thr Val Trp

35

40

45

Thr Pro Met Ser Ala Ser Ala Leu Gln Glu Pro Ala Tyr Gln Ala Leu

50

55

60

Ala Arg Thr Ser Arg Ala Pro Ser Ala Ala Ser Val Pro Met Ala Ser

65

70

75

80

Arg Cys Arg Val Thr Thr Ala Leu Ile Ser Thr Ser Ala Gln Arg Ser

85

90

95

Pro Thr Ser Ala Ser Leu Ala Pro Val Pro Thr Ala Leu Gly Ala Ser

100

105

110

Ser Ala Ser Ala His Leu Ala Leu Ser Ser Leu Thr Met Gly Thr Val

115

120

125

Ala Leu Thr His Gly Arg Val Ser Ala Ser Pro Val Leu Arg Leu Gly

130

135

140

Ser Ala Arg Cys Pro Lys Leu Ser Thr Pro Pro Arg Pro Ala Ala Ala
 145 150 155 160
 Ala Val Arg Gly Leu Gly Arg Ala Gly Glu Thr Pro Ala Asn Cys Val
 165 170 175
 Ser Arg Arg Ala Val Pro Gly Pro Asp Asp Ser Arg Glu Asp Val Asn
 180 185 190
 Glu Cys Ala Glu Asn Pro Gly Val Cys Thr Asn Gly Val Cys Val Asn
 195 200 205
 Thr Asp Gly Ser Phe Arg Cys Glu Cys Pro Phe Gly Tyr Ser Leu Asp
 210 215 220
 Phe Thr Gly Ile Asn Cys Val Asp Thr Asp Glu Cys Ser Val Gly His
 225 230 235 240
 Pro Cys Gly Gln Gly Thr Cys Thr Asn Val Ile Gly Gly Phe Glu Cys
 245 250 255
 Ala Cys Ala Asp Gly Phe Glu Pro Gly Leu Met Met Thr Cys Glu Asp
 260 265 270
 Ile Asp Glu Cys Ser Leu Asn Pro Leu Leu Cys Ala Phe Arg Cys His
 275 280 285
 Asn Thr Glu Gly Ser Tyr Leu Cys Thr Cys Pro Ala Gly Tyr Thr Leu
 290 295 300
 Arg Glu Asp Gly Ala Met Cys Arg Asp Val Asp Glu Cys Ala Asp Gly
 305 310 315 320
 Gln Gln Asp Cys His Ala Arg Gly Met Glu Cys Lys Asn Leu Ile Gly
 325 330 335
 Thr Phe Ala Cys Val Cys Pro Pro Gly Met Arg Pro Leu Pro Gly Ser
 340 345 350
 Gly Glu Gly Cys Thr Asp Asp Asn Glu Cys His Ala Gln Pro Asp Leu
 355 360 365
 Cys Val Asn Gly Arg Cys Val Asn Thr Ala Gly Ser Phe Arg Cys Asp

370	375	380
Cys Asp Glu Gly Phe Gln Pro Ser Pro Thr Leu Thr Glu Cys His Asp		
385	390	395
Ile Arg Gln Gly Pro Cys Phe Ala Glu Val Leu Gln Thr Met Cys Arg		
405	410	415
Ser Leu Ser Ser Ser Glu Ala Val Thr Arg Ala Glu Cys Cys Cys		
420	425	430
Gly Gly Gly Arg Gly Trp Gly Pro Arg Cys Glu Leu Cys Pro Leu Pro		
435	440	445
Gly Thr Ser Ala Tyr Arg Lys Leu Cys Pro His Gly Ser Gly Tyr Thr		
450	455	460
Ala Glu Gly Arg Asp Val Asp Glu Cys Arg Met Leu Ala His Leu Cys		
465	470	475
Ala His Gly Glu Cys Ile Asn Ser Leu Gly Ser Phe Arg Cys His Cys		
485	490	495
Gln Ala Gly Tyr Thr Pro Asp Ala Thr Ala Thr Thr Cys Leu Asp Met		
500	505	510
Asp Glu Cys Ser Gln Val Pro Lys Pro Cys Thr Phe Leu Cys Lys Asn		
515	520	525
Thr Lys Gly Ser Phe Leu Cys Ser Cys Pro Arg Gly Tyr Leu Leu Glu		
530	535	540
Glu Asp Gly Arg Thr Cys Lys Asp Leu Asp Glu Cys Thr Ser Arg Gln		
545	550	555
His Asn Cys Gln Phe Leu Cys Val Asn Thr Val Gly Ala Phe Thr Cys		
565	570	575
Arg Cys Pro Pro Gly Phe Thr Gln His His Gln Ala Cys Phe Asp Val		
580	585	590
Asn Glu Cys Asp Gly Pro His Arg Cys Gln His Gly Cys Gln Asn Gln		
595	600	605

Leu Gly Gly Tyr Arg Cys Ser Cys Pro Gln Gly Phe Thr Gln His Ser
 610 615 620
 Gln Trp Ala Gln Cys Val Asp Glu Asn Glu Cys Ala Leu Ser Pro Pro
 625 630 635 640
 Thr Cys Gly Ser Ala Ser Cys Arg Asn Thr Leu Gly Gly Phe Arg Cys
 645 650 655
 Val Cys Pro Ser Gly Phe Asp Phe Asp Gln Ala Leu Gly Gly Cys Gln
 660 665 670
 Asp Val Asp Glu Cys Ala Gly Arg Arg Gly Pro Cys Ser Tyr Ser Cys
 675 680 685
 Ala Asn Thr Pro Gly Gly Phe Leu Cys Gly Cys Pro Gln Gly Tyr Phe
 690 695 700
 Arg Ala Gly Gln Gly His Cys Val Ser Gly Leu Gly Phe Ser Pro Gly
 705 710 715 720
 Pro Gln Asp Thr Pro Asp Lys Glu Glu Leu Leu Ser Ser Glu Ala Cys
 725 730 735
 Tyr Glu Cys Lys Ile Asn Gly Leu Ser Pro Arg Asp Arg Pro Arg Arg
 740 745 750
 Ser Ala His Arg Asp His Gln Val Asn Leu Ala Thr Leu Asp Ser Glu
 755 760 765
 Ala Leu Leu Thr Leu Gly Leu Asn Leu Ser His Leu Gly Arg Ala Glu
 770 775 780
 Arg Ile Leu Glu Leu Arg Pro Ala Leu Glu Gly Leu Glu Gly Arg Ile
 785 790 795 800
 Arg Tyr Val Ile Val Arg Gly Asn Glu Gln Gly Phe Phe Arg Met His
 805 810 815
 His Leu Arg Gly Val Ser Ser Leu Gln Leu Gly Arg Arg Pro Gly
 820 825 830
 Pro Gly Thr Tyr Arg Leu Glu Val Val Ser His Met Ala Gly Pro Trp

835	840	845
Gly Val Gln Pro Glu Gly Gln Pro Gly Pro Trp Gly Gln Ala Leu Arg		
850	855	860
Leu Lys Val Gln Leu Gln Leu Leu		
865	870	

<210> 415

<211> 1015

<212> PRT

<213> Homo sapiens

<400> 415

Met Asp Ile Met Ser Ala Gln Ala Ser Ser Gly Ser Thr Ser Val Leu

1	5	10	15
---	---	----	----

Arg Trp Val Leu Ser Cys Leu Ala Thr Leu Leu Arg Lys Gln Asp Leu

20	25	30
----	----	----

Glu Ala Trp Gly Tyr Pro Val Thr Leu Gln Val Tyr His Gly Leu Leu

35	40	45
----	----	----

Ser Phe Thr Val His Pro Lys Pro Lys Leu Val Thr Ala Cys Ala Met

50	55	60
----	----	----

Gln Ala Phe His Ser Leu Phe His Ala Arg Pro Gly Leu Ser Thr Leu

65	70	75	80
----	----	----	----

Ser Ala Glu Leu Asn Ala Gln Ile Ile Thr Ala Leu Tyr Asp Tyr Val

85	90	95
----	----	----

Pro Ser Glu Asp Asp Leu Gln Pro Leu Leu Ala Trp Leu Lys Val Met

100	105	110
-----	-----	-----

Glu Lys Ala His Ile Asn Leu Val Arg Leu Gln Trp Asp Leu Gly Leu

115	120	125
-----	-----	-----

Gly His Leu Pro Arg Phe Phe Gly Thr Ala Val Thr Cys Leu Leu Ser
 130 135 140
 Pro His Ser Gln Val Leu Thr Ala Ala Thr Gln Ser Leu Lys Glu Ile
 145 150 155 160
 Leu Lys Glu Cys Val Ala Pro His Met Ala Asp Ile Gly Ser Val Thr
 165 170 175
 Ser Ser Ala Ser Gly Pro Ala Gln Ser Val Ala Lys Met Phe Arg Ala
 180 185 190
 Val Glu Glu Gly Leu Thr Tyr Lys Phe His Ala Ala Trp Ser Ser Val
 195 200 205
 Leu Gln Leu Leu Cys Val Phe Phe Glu Ala Cys Gly Arg Gln Ala His
 210 215 220
 Pro Val Met Arg Lys Cys Leu Gln Ser Leu Cys Asp Leu Arg Leu Ser
 225 230 235 240
 Pro His Phe Pro His Thr Ala Ala Leu Asp Gln Ala Val Gly Ala Ala
 245 250 255
 Val Thr Ser Met Gly Pro Glu Val Val Leu Gln Ala Val Pro Leu Glu
 260 265 270
 Ile Asp Gly Ser Glu Glu Thr Leu Asp Phe Pro Arg Ser Trp Leu Leu
 275 280 285
 Pro Val Ile Arg Asp His Val Gln Glu Thr Arg Leu Gly Phe Phe Thr
 290 295 300
 Thr Tyr Phe Leu Pro Leu Ala Asn Thr Leu Lys Ser Lys Ala Met Asp
 305 310 315 320
 Leu Ala Gln Ala Gly Ser Thr Val Glu Ser Lys Ile Tyr Asp Thr Leu
 325 330 335
 Gln Trp Gln Met Trp Thr Leu Leu Pro Gly Phe Cys Thr Arg Pro Thr
 340 345 350
 Asp Val Ala Ile Ser Phe Lys Gly Leu Ala Arg Thr Leu Gly Met Ala

355	360	365
Ile Ser Glu Arg Pro Asp Leu Arg Val Thr Val Cys Gln Val Leu Arg		
370	375	380
Thr Leu Ile Thr Lys Gly Cys Gln Ala Glu Ala Asp Arg Ala Glu Val		
385	390	395
Ser Arg Phe Ala Lys Asn Phe Leu Pro Ile Leu Phe Asn Leu Tyr Gly		400
405	410	415
Gln Pro Val Ala Ala Gly Asp Thr Pro Ala Pro Arg Arg Ala Val Leu		
420	425	430
Glu Thr Ile Arg Thr Tyr Leu Thr Ile Thr Asp Thr Gln Leu Val Asn		
435	440	445
Ser Leu Leu Glu Lys Ala Ser Glu Lys Val Leu Asp Pro Ala Ser Ser		
450	455	460
Asp Phe Thr Arg Leu Ser Val Leu Asp Leu Val Val Ala Leu Ala Pro		
465	470	475
Cys Ala Asp Glu Ala Ala Ile Ser Lys Leu Tyr Ser Thr Ile Arg Pro		480
485	490	495
Tyr Leu Glu Ser Lys Ala His Gly Val Gln Lys Lys Ala Tyr Arg Val		
500	505	510
Leu Glu Glu Val Cys Ala Ser Pro Gln Gly Pro Gly Ala Leu Phe Val		
515	520	525
Gln Ser His Leu Glu Asp Leu Lys Lys Thr Leu Leu Asp Ser Leu Arg		
530	535	540
Ser Thr Ser Ser Pro Ala Lys Arg Pro Arg Leu Lys Cys Leu Leu His		
545	550	555
Ile Val Arg Lys Leu Ser Ala Glu His Lys Glu Phe Ile Thr Ala Leu		560
565	570	575
Ile Pro Glu Val Ile Leu Cys Thr Lys Glu Val Ser Val Gly Ala Arg		
580	585	590

Lys Asn Ala Phe Ala Leu Leu Val Glu Met Gly His Ala Phe Leu Arg
 595 600 605
 Phe Gly Ser Asn Gln Glu Glu Ala Leu Gln Cys Tyr Leu Val Leu Ile
 610 615 620
 Tyr Pro Gly Leu Val Gly Ala Val Thr Met Val Ser Cys Ser Ile Leu
 625 630 635 640
 Ala Leu Thr His Leu Leu Phe Glu Phe Lys Gly Leu Met Gly Thr Ser
 645 650 655
 Thr Val Glu Gln Leu Leu Glu Asn Val Cys Leu Leu Ala Ser Arg
 660 665 670
 Thr Arg Asp Val Val Lys Ser Ala Leu Gly Phe Ile Lys Val Ala Val
 675 680 685
 Thr Val Met Asp Val Ala His Leu Ala Lys His Val Gln Leu Val Met
 690 695 700
 Glu Ala Ile Gly Lys Leu Ser Asp Asp Met Arg Arg His Phe Arg Met
 705 710 715 720
 Lys Leu Arg Asn Leu Phe Thr Lys Phe Ile Arg Lys Phe Gly Phe Glu
 725 730 735
 Leu Val Lys Arg Leu Leu Pro Glu Glu Tyr His Arg Val Leu Val Asn
 740 745 750
 Ile Arg Lys Ala Glu Ala Arg Ala Lys Arg His Arg Ala Leu Ser Gln
 755 760 765
 Ala Ala Val Glu Glu Glu Glu Glu Glu Glu Glu Pro Ala
 770 775 780
 Gln Gly Lys Gly Asp Ser Ile Glu Glu Ile Leu Ala Asp Ser Glu Asp
 785 790 795 800
 Glu Glu Asp Asn Glu Glu Glu Arg Ser Arg Gly Lys Glu Gln Arg
 805 810 815
 Lys Leu Ala Arg Gln Arg Ser Arg Ala Trp Leu Lys Glu Gly Gly Gly

820	825	830
Asp Glu Pro Leu Asn Phe Leu Asp Pro Lys Val Ala Gln Arg Val Leu		
835	840	845
Ala Thr Gln Pro Gly Pro Gly Arg Gly Arg Lys Lys Asp His Gly Phe		
850	855	860
Lys Val Ser Ala Asp Gly Arg Leu Ile Ile Arg Glu Glu Ala Asp Gly		
865	870	875
Asn Lys Met Glu Glu Glu Gly Ala Lys Gly Glu Asp Glu Glu Met		
885	890	895
Ala Asp Pro Met Glu Asp Val Ile Ile Arg Asn Lys Lys His Gln Lys		
900	905	910
Leu Lys His Gln Lys Glu Ala Glu Glu Glu Leu Glu Ile Pro Pro		
915	920	925
Gln Tyr Gln Ala Gly Gly Ser Gly Ile His Arg Pro Val Ala Lys Lys		
930	935	940
Ala Met Pro Gly Ala Glu Tyr Lys Ala Lys Lys Ala Lys Gly Asp Val		
945	950	955
Lys Lys Lys Gly Arg Pro Asp Pro Tyr Ala Tyr Ile Pro Leu Asn Arg		
965	970	975
Ser Lys Leu Asn Arg Arg Lys Lys Met Lys Leu Gln Gly Gln Phe Lys		
980	985	990
Gly Leu Val Lys Ala Ala Gln Arg Gly Ser Gln Val Gly His Lys Asn		
995	1000	1005
Arg Arg Lys Asp Arg Arg Pro		
1010	1015	

<210> 416

<211> 445

<212> PRT

<213> Homo sapiens

<400> 416

Met Lys Asn Pro Glu Ala Gln Gln Asp Val Ser Val Ser Gln Gly Phe
 1 5 10 15

Arg Met Leu Phe Tyr Thr Met Lys Pro Ser Glu Thr Ser Phe Gln Thr
 20 25 30

Leu Glu Glu Val Pro Asp Tyr Val Lys Lys Ala Thr Pro Phe Phe Ile
 35 40 45

Ser Leu Met Leu Leu Glu Leu Val Val Ser Trp Ile Leu Lys Gly Lys
 50 55 60

Pro Pro Gly Arg Leu Asp Asp Ala Leu Thr Ser Ile Ser Ala Gly Val
 65 70 75 80

Leu Ser Arg Leu Pro Ser Leu Phe Phe Arg Ser Ile Glu Leu Thr Ser
 85 90 95

Tyr Ile Tyr Ile Trp Glu Asn Tyr Arg Leu Phe Asn Leu Pro Trp Asp
 100 105 110

Ser Pro Trp Thr Trp Tyr Ser Ala Phe Leu Gly Val Asp Phe Gly Tyr
 115 120 125

Tyr Trp Phe His Arg Met Ala His Glu Val Asn Ile Met Trp Ala Gly
 130 135 140

His Gln Thr His His Ser Ser Glu Asp Tyr Asn Leu Ser Thr Ala Leu
 145 150 155 160

Arg Gln Ser Val Leu Gln Ile Tyr Thr Ser Trp Ile Phe Tyr Ser Pro
 165 170 175

Leu Ala Leu Phe Ile Pro Pro Ser Val Tyr Ala Val His Leu Gln Phe
 180 185 190

Asn Leu Leu Tyr Gln Phe Trp Ile His Thr Glu Val Ile Asn Asn Leu

195	200	205
Gly Pro Leu Glu Leu Ile Leu Asn Thr Pro Ser His His Arg Val His		
210	215	220
His Gly Arg Asn Arg Tyr Cys Ile Asp Lys Asn Tyr Ala Gly Val Leu		
225	230	235
Ile Ile Trp Asp Lys Ile Phe Gly Thr Phe Glu Ala Glu Asn Glu Lys		
245	250	255
Val Val Tyr Gly Leu Thr His Pro Ile Asn Thr Phe Glu Pro Ile Lys		
260	265	270
Val Gln Phe His His Leu Phe Ser Ile Trp Thr Thr Phe Trp Ala Thr		
275	280	285
Pro Gly Phe Phe Asn Lys Phe Ser Val Ile Phe Lys Gly Pro Gly Trp		
290	295	300
Gly Pro Gly Lys Pro Arg Leu Gly Leu Ser Glu Glu Ile Pro Glu Val		
305	310	315
Thr Gly Lys Glu Val Pro Phe Ser Ser Ser Ser Gln Leu Leu Lys		
325	330	335
Ile Tyr Thr Val Val Gln Phe Ala Leu Met Leu Ala Phe Tyr Glu Glu		
340	345	350
Thr Phe Ala Asp Thr Ala Ala Leu Ser Gln Val Thr Leu Leu Leu Arg		
355	360	365
Val Cys Phe Ile Ile Leu Thr Leu Thr Ser Ile Gly Phe Leu Leu Asp		
370	375	380
Gln Arg Pro Lys Ala Ala Ile Met Glu Thr Leu Arg Cys Leu Met Phe		
385	390	395
Leu Met Leu Tyr Arg Phe Gly His Leu Lys Pro Leu Val Pro Ser Leu		
405	410	415
Ser Ser Ala Phe Glu Ile Val Phe Ser Ile Cys Ile Ala Phe Trp Gly		
420	425	430

Val Arg Ser Met Lys Gln Leu Thr Ser His Pro Trp Lys

435

440

445

<210> 417

<211> 735

<212> PRT

<213> Homo sapiens

<400> 417

Met Thr Cys Leu Ile Cys Ile Ala Ser Val Lys Arg Asn Gln Ala Val

1

5

10

15

Trp Ser Cys Ser Gly Cys Phe Cys Ile Phe His Met Pro Cys Ile Gln

20

25

30

Lys Trp Ala Lys Asp Ser Gln Phe Leu Val Ser Ser Val Thr Asp Asp

35

40

45

Asp Phe Gly Lys Lys Asp Cys Pro Trp Pro Cys Pro Lys Cys Arg Phe

50

55

60

Glu Tyr Lys Arg Ser Glu Thr Pro Ser Arg Tyr Tyr Cys Tyr Cys Gly

65

70

75

80

Lys Val Glu Asp Pro Pro Leu Asp Pro Trp Leu Val Pro His Ser Cys

85

90

95

Gly Gln Val Cys Glu Arg Glu Phe Lys Pro Pro Cys Gly His Lys Cys

100

105

110

Leu Leu Leu Cys His Pro Gly Pro Cys Pro Pro Cys Pro Lys Met Val

115

120

125

Thr Thr Thr Cys Tyr Cys Lys Lys Ala Lys Pro Ile Pro Arg Arg Cys

130

135

140

Ser Ala Lys Glu Trp Ser Cys Gln Leu Pro Cys Gly Gln Lys Leu Leu

145	150	155	160												
Cys	Gly	Gln	His	Lys	Cys	Glu	Asn	Pro	Cys	His	Ala	Gly	Ser	Cys	Gln
165		170		175											
Pro	Cys	Pro	Arg	Val	Ser	Arg	Gln	Lys	Cys	Val	Cys	Gly	Lys	Lys	Val
180		185		190											
Ala	Glu	Arg	Ser	Cys	Ala	Ser	Pro	Leu	Trp	His	Cys	Asp	Gln	Val	Cys
195		200		205											
Gly	Lys	Thr	Leu	Pro	Cys	Gly	Asn	His	Thr	Cys	Glu	Gln	Val	Cys	His
210		215		220											
Val	Gly	Ala	Cys	Gly	Glu	Cys	Pro	Arg	Ser	Gly	Lys	Arg	Phe	Cys	Pro
225		230		235		240									
Cys	Gln	Lys	Ser	Lys	Phe	Ser	Leu	Pro	Cys	Thr	Glu	Asp	Val	Pro	Thr
245		250		255											
Cys	Gly	Asp	Ser	Cys	Asp	Lys	Val	Leu	Glu	Cys	Gly	Ile	His	Arg	Cys
260		265		270											
Ser	Gln	Arg	Cys	His	Arg	Gly	Pro	Cys	Glu	Thr	Cys	Arg	Gln	Glu	Val
275		280		285											
Glu	Lys	His	Cys	Arg	Cys	Gly	Lys	His	Thr	Lys	Arg	Met	Pro	Cys	His
290		295		300											
Lys	Pro	Tyr	Leu	Cys	Glu	Thr	Lys	Cys	Val	Lys	Met	Arg	Asp	Cys	Gln
305		310		315		320									
Lys	His	Gln	Cys	Arg	Arg	Lys	Cys	Cys	Pro	Gly	Asn	Cys	Pro	Pro	Cys
325		330		335											
Asp	Gln	Asn	Cys	Gly	Arg	Thr	Leu	Gly	Cys	Arg	Asn	His	Lys	Cys	Pro
340		345		350											
Ser	Val	Cys	His	Arg	Gly	Ser	Cys	Tyr	Pro	Cys	Pro	Glu	Thr	Val	Asp
355		360		365											
Val	Lys	Cys	Asn	Cys	Gly	Asn	Thr	Lys	Val	Thr	Val	Pro	Cys	Gly	Arg
370		375		380											

Glu Arg Thr Thr Arg Pro Pro Lys Cys Lys Glu Gln Cys Ser Arg Pro
 385 390 395 400
 Pro Thr Cys His His Thr Ser Gln Glu Lys His Arg Cys His Phe Gly
 405 410 415
 Ser Cys Pro Pro Cys His Gln Pro Cys Gln Lys Val Leu Glu Lys Cys
 420 425 430
 Gly His Leu Cys Pro Ala Pro Cys His Asp Gln Ala Leu Ile Lys Gln
 435 440 445
 Thr Gly Arg His Gln Pro Thr Gly Pro Trp Glu Gln Pro Ser Glu Pro
 450 455 460
 Ala Phe Ile Gln Thr Ala Leu Pro Cys Pro Pro Cys Gln Val Pro Ile
 465 470 475 480
 Pro Met Glu Cys Leu Gly Lys His Glu Val Ser Pro Leu Pro Cys His
 485 490 495
 Ala Val Gly Pro Tyr Ser Cys Lys Arg Val Cys Gly Arg Ile Leu Asp
 500 505 510
 Cys Gln Asn His Thr Cys Met Lys Glu Cys His Lys Val Thr Lys Thr
 515 520 525
 Asp Gly Cys Thr Gly Lys Asn Lys Ala Gly Pro Glu Cys Leu His Cys
 530 535 540
 Glu Glu Gly Cys Ser Lys Ser Arg Pro Leu Gly Cys Leu His Pro Cys
 545 550 555 560
 Ile Leu Arg Cys His Pro Gly Glu Cys Pro Pro Cys Val Gln Met Leu
 565 570 575
 Arg Ile Lys Cys His Cys Lys Ile Thr Ser Leu Tyr Val Glu Cys Arg
 580 585 590
 Lys Ile Thr Thr Ala Asp Val Asn Glu Lys Asn Leu Leu Ser Cys Cys
 595 600 605
 Lys Asn Gln Cys Pro Lys Glu Leu Pro Cys Gly His Arg Cys Lys Glu

610	615	620	
Met Cys His Pro Gly Glu Cys Pro Phe Asn Cys Asn Gln Lys Val Lys			
625	630	635	640
Leu Arg Cys Pro Cys Lys Arg Ile Lys Lys Glu Leu Gln Cys Asn Lys			
645	650	655	
Val Arg Glu Asn Gln Val Ser Ile Glu Cys Asp Thr Thr Cys Lys Glu			
660	665	670	
Met Lys Arg Lys Ala Ser Glu Ile Lys Glu Ala Glu Ala Lys Ala Ala			
675	680	685	
Leu Glu Glu Glu Lys Arg Arg Gln Gln Ala Glu Leu Glu Ala Phe Glu			
690	695	700	
Asn Arg Leu Lys Gly Arg Arg Lys Lys Asn Arg Lys Arg Asp Glu Val			
705	710	715	720
Ala Val Glu Leu Ser Leu Trp Gln Lys His Lys Tyr Tyr Leu Ile			
725	730	735	

<210> 418

<211> 578

<212> PRT

<213> Homo sapiens

<400> 418

Met Pro Gly Pro His Leu Ser Leu Ser Ala Ile Ser Met Ser Leu Ser			
1	5	10	15
Leu His Leu Phe Leu Leu Pro Leu Ser Leu Tyr Phe Phe Ser Ser Leu			
20	25	30	
Leu His Phe Gln Ser Leu Leu Cys Leu Leu Val Ser Arg Phe Cys			
35	40	45	

Val Ser Ile Ser Leu Thr Cys Ile Ser Met Ser Ser Phe Val Leu Phe
 50 55 60
 Ser Met Ser Leu Gly Arg His His Leu Leu Pro Thr Lys Ser Pro Tyr
 65 70 75 80
 Pro His Ala Tyr Thr Ser Leu Leu Ser Leu Pro Gln Phe Asn Pro Glu
 85 90 95
 Leu Val Leu Val Ser Ala Gly Phe Asp Ala Ala Arg Gly Asp Pro Leu
 100 105 110
 Gly Gly Cys Gln Val Ser Pro Glu Gly Tyr Ala His Leu Thr His Leu
 115 120 125
 Leu Met Gly Leu Ala Ser Gly Arg Ile Ile Leu Ile Leu Glu Gly Gly
 130 135 140
 Tyr Asn Leu Thr Ser Ile Ser Glu Ser Met Ala Ala Cys Thr Arg Ser
 145 150 155 160
 Leu Leu Gly Asp Pro Pro Leu Leu Thr Leu Pro Arg Pro Pro Leu
 165 170 175
 Ser Gly Ala Leu Ala Ser Ile Thr Glu Thr Ile Gln Val His Arg Arg
 180 185 190
 Tyr Trp Arg Ser Leu Arg Val Met Lys Val Glu Asp Arg Glu Gly Pro
 195 200 205
 Ser Ser Ser Lys Leu Val Thr Lys Lys Ala Pro Gln Pro Ala Lys Pro
 210 215 220
 Arg Leu Ala Glu Arg Met Thr Thr Arg Glu Lys Lys Val Leu Glu Ala
 225 230 235 240
 Gly Met Gly Lys Val Thr Ser Ala Ser Phe Gly Glu Glu Ser Thr Pro
 245 250 255
 Gly Gln Thr Asn Ser Glu Thr Ala Val Val Ala Leu Thr Gln Asp Gln
 260 265 270
 Pro Ser Glu Ala Ala Thr Gly Gly Ala Thr Leu Ala Gln Thr Ile Ser

275	280	285
Glu Ala Ala Ile Gly Gly Ala Met Leu Gly Gln Thr Thr Ser Glu Glu		
290	295	300
Ala Val Gly Gly Ala Thr Pro Asp Gln Thr Thr Ser Glu Glu Thr Val		
305	310	315
Gly Gly Ala Ile Leu Asp Gln Thr Thr Ser Glu Asp Ala Val Gly Gly		
325	330	335
Ala Thr Leu Gly Gln Thr Thr Ser Glu Glu Ala Val Gly Gly Ala Thr		
340	345	350
Leu Ala Gln Thr Thr Ser Glu Ala Ala Met Glu Gly Ala Thr Leu Asp		
355	360	365
Gln Thr Thr Ser Glu Glu Ala Pro Gly Gly Thr Glu Leu Ile Gln Thr		
370	375	380
Pro Leu Ala Ser Ser Thr Asp His Gln Thr Pro Pro Thr Ser Pro Val		
385	390	395
Gln Gly Thr Thr Pro Gln Ile Ser Pro Ser Thr Leu Ile Gly Ser Leu		
405	410	415
Arg Thr Leu Glu Leu Gly Ser Glu Ser Gln Gly Ala Ser Glu Ser Gln		
420	425	430
Ala Pro Gly Glu Glu Asn Leu Leu Gly Glu Ala Ala Gly Gly Gln Asp		
435	440	445
Met Ala Asp Ser Met Leu Met Gln Gly Ser Arg Gly Leu Thr Asp Gln		
450	455	460
Ala Ile Phe Tyr Ala Val Thr Pro Leu Pro Trp Cys Pro His Leu Val		
465	470	475
Ala Val Cys Pro Ile Pro Ala Ala Gly Leu Asp Val Thr Gln Pro Cys		
485	490	495
Gly Asp Cys Gly Thr Ile Gln Glu Asn Trp Val Cys Leu Ser Cys Tyr		
500	505	510

Gln Val Tyr Cys Gly Arg Tyr Ile Asn Gly His Met Leu Gln His His
 515 520 525
 Gly Asn Ser Gly His Pro Leu Val Leu Ser Tyr Ile Asp Leu Ser Ala
 530 535 540
 Trp Cys Tyr Tyr Cys Gln Ala Tyr Val His His Gln Ala Leu Leu Asp
 545 550 555 560
 Val Lys Asn Ile Ala His Gln Asn Lys Phe Gly Glu Asp Met Pro His
 565 570 575
 Pro His

<210> 419
<211> 108
<212> PRT
<213> Homo sapiens

<400> 419
 Met Gly Thr Asp Glu Asp Cys Tyr Gln Glu Arg Gly Asp Trp Asp Gln
 1 5 10 15
 Glu Ser Gly Phe Gly Arg Glu Glu Pro Arg Leu Leu Phe Trp Met Cys
 20 25 30
 Gln Asp Arg Ser Ala Phe Glu Lys Ser Glu Leu Trp Tyr Gln Ile Ala
 35 40 45
 Ser Trp Ile Cys Glu Thr Gly Val Trp Gly Lys Glu Arg Pro Trp Leu
 50 55 60
 Lys Asn Val Ser Phe Gly Asn Val Asn Ile Lys Pro Gln Asp Trp Val
 65 70 75 80
 Thr Trp Pro Ser Arg Gly Val Gly Thr Glu Lys Arg Pro Trp Pro Glu

85	90	95
----	----	----

Pro Trp Gly His Leu His Leu Gly Glu Lys Gly Met

100	105	
-----	-----	--

<210> 420

<211> 142

<212> PRT

<213> Homo sapiens

<400> 420

Met Ala Pro Val Lys Ile Ser His Val Val Ser Phe Ser Ser Gln Asp

1	5	10	15
---	---	----	----

Pro Lys Tyr Pro Val Glu Asn Leu Leu Asn Pro Asp Ser Pro Arg Arg

20	25	30
----	----	----

Pro Trp Leu Gly Cys Pro Gln Asp Lys Ser Gly Gln Leu Lys Val Glu

35	40	45
----	----	----

Leu Gln Leu Glu Arg Ala Val Pro Thr Gly Tyr Ile Asp Val Gly Asn

50	55	60
----	----	----

Cys Gly Cys Ala Phe Leu Gln Ile Asp Val Gly His Ser Ser Trp Pro

65	70	75	80
----	----	----	----

Leu Asp Arg Pro Phe Ile Thr Leu Leu Pro Ala Thr Thr Leu Met Ser

85	90	95
----	----	----

Leu Thr Asp Ser Lys Gln Gly Lys Asn Arg Ser Gly Val Arg Met Phe

100	105	110
-----	-----	-----

Lys Asp Gly Lys Glu Gly Lys Ser Arg Lys Asp Gly Gly Leu Tyr

115	120	125
-----	-----	-----

Glu Lys Gln Arg Cys Ser Thr Lys Glu Asp Cys Glu Cys Tyr

130	135	140
-----	-----	-----

<210> 421

<211> 153

<212> PRT

<213> Homo sapiens

<400> 421

Met Tyr Glu Ile Tyr Val Glu Thr Cys Gly Gln Asn Thr Glu Asn Gln

1

5

10

15

Val Asn Pro Ala Thr Phe Gly Lys Leu Val Arg Leu Val Phe Pro Asp

20

25

30

Leu Gly Thr Arg Trp Leu Gly Thr Arg Gly Ser Ala Arg Tyr His Tyr

35

40

45

Asp Gly Ile Cys Ile Lys Lys Ser Ser Phe Phe Tyr Ala Gln Tyr Cys

50

55

60

Cys Leu Ile Gly Glu Lys Arg Tyr His Ser Gly Asp Ala Ile Ala Phe

65

70

75

80

Glu Lys Ser Thr Asn Tyr Asn Ser Ile Ile Gln Gln Glu Ala Thr Cys

85

90

95

Glu Asp His Ser Pro Met Lys Thr Asp Pro Val Gly Ser Pro Leu Ser

100

105

110

Glu Phe Arg Arg Cys Pro Phe Leu Glu Gln Glu Leu Ala Lys Lys Tyr

115

120

125

Ser Cys Asn Met Met Ala Phe Leu Ala Asp Glu Tyr Cys Asn Tyr Cys

130

135

140

Arg Asp Ile Leu Arg Asn Val Arg Asn

145

150

<210> 422

<211> 787

<212> PRT

<213> Homo sapiens

<400> 422

Met Glu Gly Ala Gly Glu Asn Ala Pro Glu Ser Ser Ser Ala Pro

1 5 10 15

Gly Ser Glu Glu Ser Ala Arg Asp Pro Gln Val Pro Pro Pro Glu Glu

20 25 30

Glu Ser Gly Asp Cys Ala Arg Ser Leu Glu Ala Val Pro Lys Lys Leu

35 40 45

Cys Gly Tyr Leu Ser Lys Phe Gly Gly Lys Gly Pro Ile Arg Gly Trp

50 55 60

Lys Ser Arg Trp Phe Phe Tyr Asp Glu Arg Lys Cys Gln Leu Tyr Tyr

65 70 75 80

Ser Arg Thr Ala Gln Asp Ala Asn Pro Leu Asp Ser Val Asp Leu Ser

85 90 95

Ser Ala Val Phe Asp Cys Lys Ala Asp Ala Glu Glu Gly Ile Phe Glu

100 105 110

Ile Lys Thr Pro Ser Arg Val Ile Thr Leu Lys Ala Ala Thr Lys Gln

115 120 125

Ala Met Leu Tyr Trp Leu Gln Gln Leu Gln Met Lys Arg Trp Glu Phe

130 135 140

His Asn Ser Pro Pro Ala Pro Pro Ala Thr Pro Asp Ala Ala Leu Ala

145 150 155 160

Gly Asn Gly Pro Val Leu His Leu Glu Leu Gly Gln Glu Glu Ala Glu

165 170 175

Leu Glu Glu Phe Leu Cys Pro Val Lys Thr Pro Pro Gly Leu Val Gly
 180 185 190
 Val Ala Ala Ala Leu Gln Pro Phe Pro Ala Leu Gln Asn Ile Ser Leu
 195 200 205
 Lys His Leu Gly Thr Glu Ile Gln Asn Thr Met His Asn Ile Arg Gly
 210 215 220
 Asn Lys Gln Ala Gln Gly Thr Gly His Glu Pro Pro Gly Glu Asp Ser
 225 230 235 240
 Pro Gln Ser Gly Glu Pro Gln Arg Glu Glu Gln Pro Leu Ala Ser Asp
 245 250 255
 Ala Ser Thr Pro Gly Arg Glu Pro Glu Asp Ser Pro Lys Pro Ala Pro
 260 265 270
 Lys Pro Ser Leu Thr Ile Ser Phe Ala Gln Lys Ala Lys Arg Gln Asn
 275 280 285
 Asn Thr Phe Pro Phe Ser Glu Gly Ile Thr Arg Asn Arg Thr Ala
 290 295 300
 Gln Glu Lys Val Ala Ala Leu Glu Gln Gln Val Leu Met Leu Thr Lys
 305 310 315 320
 Glu Leu Lys Ser Gln Lys Glu Leu Val Lys Ile Leu His Lys Ala Leu
 325 330 335
 Glu Ala Ala Gln Gln Glu Lys Arg Ala Ser Ser Ala Tyr Leu Ala Ala
 340 345 350
 Ala Glu Asp Lys Asp Arg Leu Glu Leu Val Arg His Lys Val Arg Gln
 355 360 365
 Ile Ala Glu Leu Gly Arg Arg Val Glu Ala Leu Glu Gln Glu Arg Glu
 370 375 380
 Ser Leu Ala His Thr Ala Ser Leu Arg Glu Gln Gln Val Gln Glu Leu
 385 390 395 400
 Gln Gln His Val Gln Leu Leu Met Asp Lys Asn His Ala Lys Gln Gln

405	410	415
Val Ile Cys Lys Leu Ser Glu Lys Val Thr Gln Asp Phe Thr His Pro		
420	425	430
Pro Asp Gln Ser Pro Leu Arg Pro Asp Ala Ala Asn Arg Asp Phe Leu		
435	440	445
Ser Gln Gln Gly Lys Ile Glu His Leu Lys Asp Asp Met Glu Ala Tyr		
450	455	460
Arg Thr Gln Asn Cys Phe Leu Asn Ser Glu Ile His Gln Val Thr Lys		
465	470	475
Ile Trp Arg Lys Val Ala Glu Lys Glu Lys Ala Leu Leu Thr Lys Cys		
485	490	495
Ala Tyr Leu Gln Ala Arg Asn Cys Gln Val Glu Ser Lys Tyr Leu Ala		
500	505	510
Gly Leu Arg Arg Leu Gln Glu Ala Leu Gly Asp Glu Ala Ser Glu Cys		
515	520	525
Ser Glu Leu Leu Arg Gln Leu Val Gln Glu Ala Leu Gln Trp Glu Ala		
530	535	540
Gly Glu Ala Ser Ser Asp Ser Ile Glu Leu Ser Pro Ile Ser Lys Tyr		
545	550	555
Asp Glu Tyr Gly Phe Leu Thr Val Pro Asp Tyr Glu Val Glu Asp Leu		
565	570	575
Lys Leu Leu Ala Lys Ile Gln Ala Leu Glu Ser Arg Ser His His Leu		
580	585	590
Leu Gly Leu Glu Ala Val Asp Arg Pro Leu Arg Glu Arg Trp Val Ala		
595	600	605
Leu Gly Asp Leu Val Pro Ser Ala Glu Leu Lys Gln Leu Leu Arg Ala		
610	615	620
Gly Val Pro Arg Glu His Arg Pro Arg Val Trp Arg Trp Leu Val His		
625	630	635
640		

Leu Arg Val Gln His Leu His Thr Pro Gly Cys Tyr Gln Glu Leu Leu
 645 650 655
 Ser Arg Gly Gln Ala Arg Glu His Pro Ala Ala Arg Gln Ile Glu Leu
 660 665 670
 Asp Leu Asn Arg Thr Phe Pro Asn Asn Lys His Phe Thr Cys Gly Ser
 675 680 685
 Trp Ser Ser Leu Arg Gln Ser Thr Trp Gly Gly His Pro Gly Ala
 690 695 700
 Glu Leu Cys Pro Arg Ala Val Pro Ala Arg Thr Arg Trp Arg Gly Lys
 705 710 715 720
 Pro Asp Leu Ala Thr Ser Pro Pro His Ser Leu Pro His Pro Trp Leu
 725 730 735
 Ala Asp Pro Leu Glu Val Arg His Gly Pro Val Ala Gln Pro Trp Val
 740 745 750
 Ser His His His Val Thr Leu Asp Met Ser Leu Pro Leu Ser Gly Pro
 755 760 765
 Gln Phe Pro His Trp Asp Ile Val Cys Cys Lys Ala Ile Gly Trp Ala
 770 775 780
 Thr Ser Ser
 785

<210> 423
 <211> 221
 <212> PRT
 <213> Homo sapiens

<400> 423
 Met Ser Gly Glu Ala Thr Val Leu Ala Tyr His Ala Pro Glu Glu Gln

1	5	10	15
Glu Gly Leu Leu Val Val Lys Val Glu Glu Glu Asn Tyr Val Leu Asp			
20	25	30	
Gln Asp Phe Gly Leu Gln Glu Asn Pro Trp Ser Gln Glu Val Phe Arg			
35	40	45	
Gln Lys Phe Arg Gln Phe Ser Tyr Ser Asp Ser Thr Gly Pro Arg Glu			
50	55	60	
Ala Leu Ser Arg Leu Arg Glu Leu Cys Cys Gln Trp Leu Arg Pro Glu			
65	70	75	80
Val His Ser Lys Glu Gln Ile Leu Glu Leu Leu Met Leu Glu Gln Phe			
85	90	95	
Leu Ala Ile Leu Pro Glu Glu Leu Gln Ala Trp Leu Arg Glu His Arg			
100	105	110	
Pro Glu Asn Gly Glu Ala Val Thr Met Leu Glu Glu Leu Glu Lys			
115	120	125	
Glu Leu Glu Glu Pro Arg Gln Gln Asp Thr Thr His Gly Gln Glu Met			
130	135	140	
Phe Trp Gln Glu Met Thr Ser Thr Gly Ala Leu Lys Ser Leu Ser Leu			
145	150	155	160
Asn Ser Pro Val Gln Pro Leu Glu Asn Gln Cys Lys Thr Glu Thr Gln			
165	170	175	
Glu Ser Gln Ala Phe Gln Glu Arg Asp Gly Val Ser Leu Cys His Pro			
180	185	190	
Gly Trp Ser Ala Val Val Gln Pro Gln Leu Thr Ala Val Ala Leu Asn			
195	200	205	
Pro Trp Val Lys Val Ile Leu Leu Pro Gln Pro Pro Glu			
210	215	220	

<210> 424

<211> 1043

<212> PRT

<213> Homo sapiens

<400> 424

Met	Ala	Met	Ala	Leu	Glu	Leu	Gln	Ala	Gln	Ala	Ser	Pro	Gln	Pro	Glu
1															
Pro	Glu	Glu	Leu	Leu	Ile	Val	Lys	Leu	Glu	Glu	Asp	Ser	Trp	Gly	Ser
Glu	Ser	Lys	Leu	Trp	Glu	Lys	Asp	Arg	Gly	Ser	Val	Ser	Gly	Pro	Glu
Ala	Ser	Arg	Gln	Arg	Phe	Arg	Gln	Phe	Gln	Tyr	Arg	Asp	Ala	Ala	Gly
50					55						60				
Pro	His	Glu	Ala	Phe	Ser	Gln	Leu	Trp	Ala	Leu	Cys	Cys	Arg	Trp	Leu
65				70						75			80		
Arg	Pro	Glu	Ile	Arg	Leu	Lys	Glu	Gln	Ile	Leu	Glu	Leu	Leu	Val	Leu
85									90				95		
Glu	Gln	Phe	Leu	Thr	Ile	Leu	Pro	Arg	Glu	Val	Gln	Thr	Trp	Val	Gln
100													110		
Ala	Arg	His	Pro	Glu	Ser	Gly	Glu	Glu	Ala	Val	Ala	Leu	Val	Glu	Asp
115									120				125		
Trp	His	Arg	Glu	Thr	Arg	Thr	Ala	Gly	Gln	Ser	Gly	Leu	Glu	Leu	His
130													140		
Thr	Glu	Glu	Thr	Arg	Pro	Leu	Lys	Thr	Gly	Glu	Glu	Ala	Gln	Ser	Phe
145					150					155			160		
Gln	Leu	Gln	Pro	Val	Asp	Pro	Trp	Pro	Glu	Gly	Gln	Ser	Gln	Lys	Lys
165									170				175		
Gly	Val	Lys	Asn	Thr	Cys	Pro	Asp	Leu	Pro	Asn	His	Leu	Asn	Ala	Glu

180	185	190
Val Ala Pro Gln Pro Leu Lys Glu Ser Ala Val Leu Thr Pro Arg Val		
195	200	205
Pro Thr Leu Pro Lys Met Gly Ser Val Gly Asp Trp Glu Val Thr Ala		
210	215	220
Glu Ser Gln Glu Ala Leu Gly Pro Gly Lys His Ala Glu Lys Glu Leu		
225	230	235
Cys Lys Asp Pro Pro Gly Asp Asp Cys Gly Asn Ser Val Cys Leu Gly		
245	250	255
Val Pro Val Ser Lys Pro Ser Asn Thr Ser Glu Lys Glu Gln Gly Pro		
260	265	270
Glu Phe Trp Gly Leu Ser Leu Ile Asn Ser Gly Lys Arg Ser Thr Ala		
275	280	285
Asp Tyr Ser Leu Asp Asn Glu Pro Ala Gln Ala Leu Thr Trp Arg Asp		
290	295	300
Ser Arg Ala Trp Glu Glu Gln Tyr Gln Trp Asp Val Glu Asp Met Lys		
305	310	315
Val Ser Gly Val His Trp Gly Tyr Glu Glu Thr Lys Thr Phe Leu Ala		
325	330	335
Ile Leu Ser Glu Ser Pro Phe Ser Glu Lys Leu Arg Thr Cys His Gln		
340	345	350
Asn Arg Gln Val Tyr Arg Ala Ile Ala Glu Gln Leu Arg Ala Arg Gly		
355	360	365
Phe Leu Arg Thr Leu Glu Gln Cys Arg Tyr Arg Val Lys Asn Leu Leu		
370	375	380
Arg Asn Tyr Arg Lys Ala Lys Ser Ser His Pro Pro Gly Thr Cys Pro		
385	390	395
Phe Tyr Glu Glu Leu Glu Ala Leu Val Arg Ala Arg Thr Ala Ile Arg		
405	410	415

Ala Thr Asp Gly Pro Gly Glu Ala Val Ala Leu Pro Arg Leu Gly Asp
 420 425 430
 Ser Asp Ala Glu Met Asp Glu Gln Glu Gly Gly Trp Asp Pro Glu
 435 440 445
 Glu Met Ala Glu Asp Cys Asn Gly Ala Gly Leu Val Asn Val Glu Ser
 450 455 460
 Thr Gln Gly Pro Arg Ile Ala Gly Ala Pro Ala Leu Phe Gln Ser Arg
 465 470 475 480
 Ile Ala Gly Val His Trp Gly Tyr Glu Glu Thr Lys Ala Phe Leu Ala
 485 490 495
 Ile Leu Ser Glu Ser Pro Phe Ser Glu Lys Leu Arg Thr Cys His Gln
 500 505 510
 Asn Ser Gln Val Tyr Arg Ala Ile Ala Glu Arg Leu Cys Ala Leu Gly
 515 520 525
 Phe Leu Arg Thr Leu Glu Gln Cys Arg Tyr Arg Phe Lys Asn Leu Leu
 530 535 540
 Arg Ser Tyr Arg Lys Ala Lys Ser Ser His Pro Pro Gly Thr Cys Pro
 545 550 555 560
 Phe Tyr Glu Glu Leu Asp Ser Leu Met Arg Ala Arg Ala Ala Val Arg
 565 570 575
 Ala Met Gly Thr Val Arg Glu Ala Ala Gly Leu Pro Arg Cys Gly Gln
 580 585 590
 Ser Ser Ala Glu Thr Asp Ala Gln Glu Ala Trp Gly Glu Val Ala Asn
 595 600 605
 Glu Asp Ala Val Lys Pro Ser Thr Leu Cys Pro Lys Ala Pro Asp Met
 610 615 620
 Gly Phe Glu Met Arg His Glu Asp Glu Asp Gln Ile Ser Glu Gln Asp
 625 630 635 640
 Ile Phe Glu Gly Leu Pro Gly Ala Leu Ser Lys Cys Pro Thr Glu Ala

645	650	655
Val Cys Gln Pro Leu Asp Trp Gly Glu Asp Ser Glu Asn Glu Asn Glu		
660	665	670
Asp Glu Gly Gln Trp Gly Asn Pro Ser Gln Glu Gln Trp Gln Glu Ser		
675	680	685
Ser Ser Glu Glu Asp Leu Glu Lys Leu Ile Asp His Gln Gly Leu Tyr		
690	695	700
Leu Ala Glu Lys Pro Tyr Lys Cys Asp Thr Cys Met Lys Ser Phe Ser		
705	710	715
Arg Ser Ser His Phe Ile Ala His Gln Arg Ile His Thr Gly Glu Lys		
725	730	735
Pro Tyr Lys Arg Leu Glu Cys Gly Lys Asn Phe Ser Asp Arg Ser Asn		
740	745	750
Leu Asn Thr His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys		
755	760	765
Leu Glu Cys Gly Lys Ser Phe Ser Asp His Ser Asn Leu Ile Thr His		
770	775	780
Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Gly Glu Cys Trp		
785	790	795
Lys Ser Phe Asn Gln Ser Ser Asn Leu Leu Lys His Gln Arg Ile His		
805	810	815
Leu Gly Gly Asn Pro Asp Gln Cys Ser Glu Pro Gly Gly Asn Phe Ala		
820	825	830
Gln Ser Pro Ser Phe Ser Ala His Trp Arg Asn Ser Thr Glu Glu Thr		
835	840	845
Ala Pro Glu Gln Pro Gln Ser Ile Ser Lys Asp Leu Asn Ser Pro Gly		
850	855	860
Pro His Ser Thr Asn Ser Gly Glu Lys Leu Tyr Glu Cys Ser Glu Cys		
865	870	875
880		

Gly Arg Ser Phe Ser Lys Ser Ser Ala Leu Ile Ser His Gln Arg Ile
 885 890 895
 His Thr Gly Glu Lys Pro Tyr Glu Cys Ala Glu Cys Gly Lys Ser Phe
 900 905 910
 Ser Lys Ser Ser Thr Leu Ala Asn His Gln Arg Thr His Thr Gly Glu
 915 920 925
 Lys Pro Tyr Lys Cys Val Asp Cys Gly Lys Cys Phe Ser Glu Arg Ser
 930 935 940
 Lys Leu Ile Thr His Gln Arg Val His Thr Gly Glu Lys Pro Tyr Lys
 945 950 955 960
 Cys Leu Glu Cys Gly Lys Phe Phe Arg Asp Arg Ser Asn Leu Ile Thr
 965 970 975
 His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Arg Glu Cys
 980 985 990
 Gly Lys Cys Phe Asn Gln Ser Ser Leu Ile Ile His Gln Arg Ile
 995 1000 1005
 His Thr Gly Glu Lys Pro Tyr Lys Cys Thr Glu Cys Gly Lys Asp Phe
 1010 1015 1020
 Asn Asn Ser Ser His Phe Ser Ala His Arg Arg Thr His Ala Gly Gly
 1025 1030 1035 1040
 Lys Ala Ser

<210> 425

<211> 422

<212> PRT

<213> Homo sapiens

<400> 425

Met Pro Leu Trp Glu Ala Pro Ser Asp His Pro Ala Asn Pro Pro Ala
 1 5 10 15
 Thr Leu Gln Gly His Thr Ser Leu Pro Gly Cys Gln Glu Glu Pro Ala
 20 25 30
 Arg Asp Pro Gln Ser Gly Leu Pro Gln Ile Thr Ser Glu Ser Ser Ser
 35 40 45
 Phe Ser Glu Gly Ser Leu Pro Ser Trp Ser Ser Gly Pro Ala Gly Ala
 50 55 60
 Lys Leu Asn Ala Ser His Glu Gly Ile Gly Ser Ser Ser Asp Gly Asn
 65 70 75 80
 Gly Asp Ser Lys Ala Ala Thr Glu Arg Val Val Ser Ala Met Asp Thr
 85 90 95
 Val Arg Arg Lys His Pro Glu Ile Thr Phe Tyr Ile Leu Val Lys Ala
 100 105 110
 Ile Tyr Thr Leu Gly Tyr Ser Val Ser Leu Met Ser Leu Ala Thr Gly
 115 120 125
 Ser Ile Ile Leu Cys Leu Phe Arg Lys Leu His Cys Thr Arg Asn Tyr
 130 135 140
 Ile His Leu Asn Leu Phe Leu Ser Phe Ile Leu Arg Ala Ile Ser Val
 145 150 155 160
 Leu Val Lys Asp Asp Val Leu Tyr Ser Ser Ser Gly Thr Leu His Cys
 165 170 175
 Pro Asp Gln Pro Ser Ser Trp Val Gly Cys Lys Leu Ser Leu Val Phe
 180 185 190
 Leu Gln Tyr Cys Ile Met Ala Asn Phe Phe Trp Leu Leu Val Glu Gly
 195 200 205
 Leu Tyr Leu His Thr Leu Leu Val Ala Met Leu Pro Pro Arg Arg Cys
 210 215 220

Phe Leu Ala Tyr Leu Leu Ile Gly Trp Gly Leu Pro Thr Val Cys Ile
 225 230 235 240
 Gly Ala Trp Thr Ala Ala Arg Leu Tyr Leu Glu Asp Thr Gly Cys Trp
 245 250 255
 Asp Thr Asn Asp His Ser Val Pro Trp Trp Val Ile Arg Ile Pro Ile
 260 265 270
 Leu Ile Ser Ile Ile Val Asn Phe Val Leu Phe Ile Ser Ile Arg
 275 280 285
 Ile Leu Leu Gln Lys Leu Thr Ser Pro Asp Val Gly Gly Asn Asp Gln
 290 295 300
 Ser Gln Tyr Lys Arg Leu Ala Lys Ser Thr Leu Leu Leu Ile Pro Leu
 305 310 315 320
 Phe Gly Val His Tyr Met Val Phe Ala Val Phe Pro Ile Ser Ile Ser
 325 330 335
 Ser Lys Tyr Gln Ile Leu Phe Glu Leu Cys Leu Gly Ser Phe Gln Gly
 340 345 350
 Leu Val Val Ala Val Leu Tyr Cys Phe Leu Asn Ser Glu Val Gln Cys
 355 360 365
 Glu Leu Lys Arg Lys Trp Arg Ser Arg Cys Pro Thr Pro Ser Ala Ser
 370 375 380
 Arg Asp Tyr Arg Val Cys Gly Ser Ser Phe Ser Arg Asn Gly Ser Glu
 385 390 395 400
 Gly Ala Leu Gln Phe His Arg Gly Ser Arg Ala Gln Ser Phe Leu Gln
 405 410 415
 Thr Glu Thr Ser Val Ile
 420

<211> 310

<212> PRT

<213> Homo sapiens

<400> 426

Met	Pro	Ser	Ser	Lys	Pro	Gly	Ser	Pro	Ala	Pro	Gln	Asp	Pro	Ser	Pro
1															15
Ser	Cys	Arg	Thr	Cys	Ser	Asn	Gln	Val	Gln	Pro	Gly	His	Leu	Leu	Leu
														20	30
Pro	Leu	Thr	Lys	Ala	Ser	Leu	Thr	Gly	Pro	Ser	Pro	Pro	Pro	Ala	Lys
														35	45
Leu	Gly	Arg	Ala	Gln	Gly	Ala	Pro	Ser	Pro	Lys	Gly	Pro	Leu	Glu	Ile
														50	60
Gly	Trp	Ser	Pro	Asp	Ala	Gln	Pro	Leu	Arg	Leu	Gly	Glu	Thr	Phe	Leu
														65	80
Pro	Lys	Gly	Val	Ala	Gln	Leu	Ser	Arg	Ala	Ser	Ser	Ser	Gly	His	Lys
														85	95
Val	Gly	Phe	Leu	Gln	Pro	Trp	Pro	Pro	His	Pro	Leu	Leu	Pro	Gln	Glu
														100	110
Arg	Val	Pro	Arg	His	Gln	Arg	Gln	Cys	Cys	Pro	Arg	Ala	Gly	Pro	Ala
														115	125
Phe	Gly	Cys	Leu	Arg	Gly	Arg	Pro	Gly	Gly	Trp	Pro	Ala	Thr	Gly	Ser
														130	140
Gly	Gly	Arg	Gln	Gln	Gly	Arg	Lys	Met	Gly	His	Pro	Pro	Val	Ser	Pro
														145	160
Ser	Ala	Pro	Ala	Pro	Ala	Gly	Thr	Thr	Ala	Ile	Pro	Gly	Leu	Ile	Pro
														165	175
Asp	Leu	Val	Ala	Gly	Thr	Pro	Trp	Pro	Arg	Trp	Ala	Leu	Ile	Ala	Gly
														180	190

Ala Leu Ala Ala Gly Val Leu Leu Val Ser Cys Leu Leu Cys Ala Ala
 195 200 205
 Cys Cys Cys Cys Arg Arg His Arg Lys Lys Pro Arg Asp Lys Glu Ser
 210 215 220
 Val Gly Leu Gly Ser Ala Arg Gly Thr Thr Thr His Leu Val Gln
 225 230 235 240
 Pro Asp Val Asp Gly Leu Glu Ser Ser Pro Gly Asp Ala Gln Gln Trp
 245 250 255
 Gly Arg Leu Gln Leu Ser Leu Glu Phe Asp Phe Gly Ser Gln Glu Val
 260 265 270
 Lys Gly Pro Ala Ala Gln Asp Gln Arg Phe Cys Glu Phe Pro Glu Arg
 275 280 285
 Val Thr Gly Glu Gly Gln Thr Pro Cys Pro Gly Trp Trp Gly Ala Asp
 290 295 300
 Arg Ala Gly Ala Leu Gly
 305 310

<210> 427
 <211> 872
 <212> PRT
 <213> Homo sapiens

<400> 427
 Met Gln Glu Ala Ile Ile Leu Leu Ala Leu Leu Gly Ala Met Ser Gly
 1 5 10 15
 Asn Val Ala Glu Asn Ser Pro Pro Gly Thr Ser Val His Lys Phe Ser
 20 25 30
 Val Lys Leu Ser Ala Ser Leu Ser Pro Val Ile Pro Gly Phe Pro Gln

35	40	45
Ile Val Asn Ser Asn Pro Leu Thr Glu Ala Phe Arg Val Asn Trp Leu		
50	55	60
Ser Gly Thr Tyr Phe Glu Val Val Thr Thr Gly Met Glu Gln Leu Asp		
65	70	75
Phe Glu Thr Gly Pro Asn Ile Phe Asp Leu Gln Ile Tyr Val Lys Asp		
85	90	95
Glu Val Gly Val Thr Asp Leu Gln Val Leu Thr Val Gln Val Thr Asp		
100	105	110
Val Asn Glu Pro Pro Gln Phe Gln Gly Asn Leu Ala Glu Gly Leu His		
115	120	125
Leu Tyr Ile Val Glu Arg Ala Asn Pro Gly Phe Ile Tyr Gln Val Glu		
130	135	140
Ala Phe Asp Pro Glu Asp Thr Ser Arg Asn Ile Pro Leu Ser Tyr Phe		
145	150	155
Leu Ile Ser Pro Pro Lys Ser Phe Arg Met Ser Ala Asn Gly Thr Leu		
165	170	175
Phe Ser Thr Thr Glu Leu Asp Phe Glu Ala Arg His Arg Ser Phe His		
180	185	190
Leu Ile Val Glu Val Arg Asp Ser Gly Gly Leu Lys Ala Ser Thr Glu		
195	200	205
Leu Gln Val Asn Ile Val Asn Leu Asn Asp Glu Val Pro Arg Phe Thr		
210	215	220
Ser Pro Thr Arg Val Tyr Thr Val Leu Glu Glu Leu Ser Pro Gly Thr		
225	230	235
Ile Val Ala Asn Ile Thr Ala Glu Asp Pro Asp Asp Glu Gly Phe Pro		
245	250	255
Ser His Leu Leu Tyr Ser Ile Thr Thr Val Ser Lys Tyr Phe Met Ile		
260	265	270

Asn Gln Leu Thr Gly Thr Ile Gln Val Ala Gln Arg Ile Asp Arg Asp
 275 280 285
 Ala Gly Glu Leu Arg Gln Asn Pro Thr Ile Ser Leu Glu Val Leu Val
 290 295 300
 Lys Asp Arg Pro Tyr Gly Gly Gln Glu Asn Arg Ile Gln Ile Thr Phe
 305 310 315 320
 Ile Val Glu Asp Val Asn Asp Asn Pro Ala Thr Cys Gln Lys Phe Thr
 325 330 335
 Phe Ser Ile Met Val Pro Glu Arg Thr Ala Lys Gly Thr Leu Leu Leu
 340 345 350
 Asp Leu Asn Lys Phe Cys Phe Asp Asp Asp Ser Glu Ala Pro Asn Asn
 355 360 365
 Arg Phe Asn Phe Thr Met Pro Ser Gly Val Gly Ser Gly Ser Arg Phe
 370 375 380
 Leu Gln Asp Pro Ala Gly Ser Gly Lys Ile Val Leu Ile Gly Asp Leu
 385 390 395 400
 Asp Tyr Glu Asn Pro Ser Asn Leu Ala Ala Gly Asn Lys Tyr Thr Val
 405 410 415
 Ile Ile Gln Val Gln Asp Val Ala Pro Pro Tyr Tyr Lys Asn Asn Val
 420 425 430
 Tyr Val Tyr Ile Leu Thr Ser Pro Glu Asn Glu Phe Pro Leu Ile Phe
 435 440 445
 Asp Arg Pro Ser Tyr Val Phe Asp Val Ser Glu Arg Arg Pro Ala Arg
 450 455 460
 Thr Arg Val Gly Gln Val Arg Ala Thr Asp Lys Asp Leu Pro Gln Ser
 465 470 475 480
 Ser Leu Leu Tyr Ser Ile Ser Thr Gly Gly Ala Ser Leu Gln Tyr Pro
 485 490 495
 Asn Val Phe Trp Ile Asn Pro Lys Thr Gly Glu Leu Gln Leu Val Thr

500	505	510
Lys Val Asp Cys Glu Thr Thr Pro Ile Tyr Ile Leu Arg Ile Gln Ala		
515	520	525
Thr Asn Asn Glu Asp Thr Ser Ser Val Thr Val Thr Val Asn Ile Leu		
530	535	540
Glu Glu Asn Asp Glu Lys Pro Ile Cys Thr Pro Asn Ser Tyr Phe Leu		
545	550	555
560		
Ala Leu Pro Val Asp Leu Lys Val Gly Thr Asn Ile Gln Asn Phe Lys		
565	570	575
Leu Thr Cys Thr Asp Leu Asp Ser Ser Pro Arg Ser Phe Arg Tyr Ser		
580	585	590
Ile Gly Pro Gly Asn Val Asn Asn His Phe Thr Phe Ser Pro Asn Ala		
595	600	605
Gly Ser Asn Val Thr Arg Pro Leu Leu Thr Ser Arg Phe Asp Tyr Ala		
610	615	620
Gly Gly Phe Asp Lys Ile Trp Asp Tyr Lys Leu Leu Val Tyr Val Thr		
625	630	635
640		
Asp Asp Asn Leu Met Ser Asp Lys Lys Lys Ala Glu Ala Leu Val Glu		
645	650	655
Thr Gly Thr Val Thr Leu Ser Ile Lys Val Ile Pro His Pro Thr Thr		
660	665	670
Ile Ile Thr Thr Pro Arg Pro Arg Val Thr Tyr Gln Val Leu Arg		
675	680	685
Lys Asn Val Tyr Ser Pro Ser Ala Trp Tyr Val Pro Phe Val Ile Thr		
690	695	700
Leu Gly Ser Ile Leu Leu Leu Gly Leu Leu Val Tyr Leu Val Val Leu		
705	710	715
720		
Leu Ala Lys Ala Ile His Arg His Cys Pro Cys Lys Thr Gly Lys Asn		
725	730	735

Lys Glu Pro Leu Thr Lys Lys Gly Glu Thr Lys Thr Ala Glu Arg Asp
 740 745 750
 Val Val Val Glu Thr Ile Gln Met Asn Thr Ile Phe Asp Gly Glu Ala
 755 760 765
 Ile Asp Pro Val Thr Gly Glu Thr Tyr Glu Leu Asn Ser Lys Thr Gly
 770 775 780
 Ala Arg Lys Trp Lys Asp Pro Leu Thr Gln Met Pro Lys Trp Lys Glu
 785 790 795 800
 Ser Ser His Gln Gly Ala Ala Pro Arg Arg Val Thr Ala Gly Glu Gly
 805 810 815
 Met Gly Ser Leu Arg Ser Ala Asn Trp Glu Glu Asp Glu Leu Ser Gly
 820 825 830
 Lys Ala Trp Ala Glu Asp Ala Asp Leu Gly Ser Arg Asn Glu Gly Gly
 835 840 845
 Lys Leu Gly Asn Pro Lys Asn Arg Asn Pro Ala Phe Met Asn Arg Ala
 850 855 860
 Tyr Pro Lys Pro His Pro Gly Lys
 865 870

<210> 428
 <211> 530
 <212> PRT
 <213> Homo sapiens

<400> 428
 Met Glu Gly Pro Leu Thr Pro Pro Pro Leu Gln Gly Gly Ala Ala
 1 5 10 15
 Ala Val Pro Glu Pro Gly Ala Arg Gln His Pro Gly His Glu Thr Ala

20	25	30
Ala Gln Arg Tyr Ser Ala Arg Leu Leu Gln Ala Gly Tyr Glu Pro Glu		
35	40	45
Ser Asp Phe Leu Ile Leu Pro Gly Phe Ile Asp Phe Ile Ala Asp Glu		
50	55	60
Val Asp Leu Thr Ser Ala Leu Thr Arg Lys Ile Thr Leu Lys Thr Pro		
65	70	75
Leu Ile Ser Ser Pro Met Asp Thr Val Thr Glu Ala Asp Met Ala Phe		
85	90	95
Ala Met Ala Leu Met Gly Gly Ile Gly Phe Ile His His Asn Cys Thr		
100	105	110
Pro Glu Phe Gln Ala Asn Glu Val Arg Lys Val Lys Lys Phe Glu Gln		
115	120	125
Gly Phe Ile Thr Asp Pro Val Val Leu Ser Pro Ser His Thr Val Gly		
130	135	140
Asp Val Leu Glu Ala Lys Met Arg His Gly Phe Ser Gly Ile Pro Ile		
145	150	155
Thr Glu Thr Gly Thr Met Gly Ser Lys Leu Val Gly Ile Val Thr Ser		
165	170	175
Arg Asp Ile Asp Phe Leu Ala Glu Lys Asp His Thr Thr Leu Leu Ser		
180	185	190
Glu Val Met Thr Pro Arg Ile Glu Leu Val Val Ala Pro Ala Gly Val		
195	200	205
Thr Leu Lys Glu Ala Asn Glu Ile Leu Gln Arg Ser Lys Lys Gly Lys		
210	215	220
Leu Pro Ile Val Asn Asp Cys Asp Glu Leu Val Ala Ile Ile Ala Arg		
225	230	235
Thr Asp Leu Lys Lys Asn Arg Asp Tyr Pro Leu Ala Ser Lys Asp Ser		
245	250	255

Gln Lys Gln Leu Leu Cys Gly Ala Ala Val Gly Thr Arg Glu Asp Asp
 260 265 270
 Lys Tyr Arg Leu Asp Leu Leu Thr Gln Ala Gly Val Asp Val Ile Val
 275 280 285
 Leu Asp Ser Ser Gln Gly Asn Ser Val Tyr Gln Ile Ala Met Val His
 290 295 300
 Tyr Ile Lys Gln Lys Tyr Pro His Leu Gln Val Ile Gly Gly Asn Val
 305 310 315 320
 Val Thr Ala Ala Gln Ala Lys Asn Leu Ile Asp Ala Gly Val Asp Gly
 325 330 335
 Leu Arg Val Gly Met Gly Cys Gly Ser Ile Cys Ile Thr Gln Glu Val
 340 345 350
 Met Ala Cys Gly Arg Pro Gln Gly Thr Ala Val Tyr Lys Val Ala Glu
 355 360 365
 Tyr Ala Arg Arg Phe Gly Val Pro Ile Ile Ala Asp Gly Gly Ile Gln
 370 375 380
 Thr Val Gly His Val Val Lys Ala Leu Ala Leu Gly Ala Ser Thr Val
 385 390 395 400
 Met Met Gly Ser Leu Leu Ala Ala Thr Thr Glu Ala Pro Gly Glu Tyr
 405 410 415
 Phe Phe Ser Asp Gly Val Arg Leu Lys Lys Tyr Arg Gly Met Gly Ser
 420 425 430
 Leu Asp Ala Met Glu Lys Ser Ser Ser Gln Lys Arg Tyr Phe Ser
 435 440 445
 Glu Gly Asp Lys Val Lys Ile Ala Gln Gly Val Ser Gly Ser Ile Gln
 450 455 460
 Asp Lys Gly Ser Ile Gln Lys Phe Val Pro Tyr Leu Ile Ala Gly Ile
 465 470 475 480
 Gln His Gly Cys Gln Asp Ile Gly Ala Arg Ser Leu Ser Val Leu Arg

485	490	495
Ser Met Met Tyr Ser Gly Glu Leu Lys Phe Glu Lys Arg Thr Met Ser		
500	505	510
Ala Gln Ile Glu Gly Gly Val His Gly Leu His Ser Tyr Glu Lys Arg		
515	520	525
Leu Tyr		
530		

<210> 429

<211> 134

<212> PRT

<213> Homo sapiens

<400> 429

Met Leu Arg Asp Phe Val Thr Thr Arg Pro Ala Leu Gln Glu Ala Leu			
1	5	10	15

Lys Glu Ala Leu Asn Met Glu Arg Lys Asn Arg Tyr Gln Pro Leu Gln			
20	25	30	

Lys Pro Tyr Gln Asn Met Lys Thr Asn Glu Ala Ile Lys Lys Leu His			
35	40	45	

Gln Leu Met Cys Lys Ile Thr Arg Ser Asn Ser His Ile Thr Ile Leu			
50	55	60	

Thr Leu Ser Val Asn Trp Leu Asn Ala Pro Ile Lys Lys His Arg Leu			
65	70	75	80

Ala Asn Trp Ile Lys Ser Gln Asp Pro Ser Val Cys Cys Ile Gln Glu			
85	90	95	

Thr His Leu Met Cys Lys Asp Thr His Arg Pro Lys Ile Lys Gly Trp			
100	105	110	

Arg Asn Ile Tyr Gln Ala Asn Gly Lys Pro Lys Lys Lys Ser Gly

115

120

125

Gly Cys Asn Pro Ser Leu

130

<210> 430

<211> 505

<212> PRT

<213> Homo sapiens

<400> 430

Met Ala Gly Ala Gln Thr Leu Leu Thr Phe Arg Asp Val Ala Ile Glu

1

5

10

15

Phe Ser Leu Glu Glu Trp Lys Cys Leu Asp Leu Ala Gln Gln Asn Leu

20

25

30

Tyr Arg Asp Val Met Leu Glu Asn Tyr Arg Asn Leu Phe Ser Val Gly

35

40

45

Leu Thr Val Cys Lys Pro Gly Leu Ile Thr Cys Leu Glu Gln Arg Lys

50

55

60

Glu Pro Trp Asn Val Lys Arg Gln Glu Ala Ala Asp Gly His Pro Ala

65

70

75

80

Met Ser Ser His Phe Thr Gln Asp Leu Leu Pro Glu Gln Gly Ile Gln

85

90

95

Asp Ala Phe Pro Lys Arg Ile Leu Arg Gly Tyr Gly Asn Cys Gly Leu

100

105

110

Asp Asn Leu Tyr Leu Arg Lys Asp Trp Glu Ser Leu Asp Glu Cys Lys

115

120

125

Leu Gln Lys Asp Tyr Asn Gly Leu Asn Gln Cys Ser Ser Thr Thr His

130	135	140
Ser Lys Ile Phe Gln Tyr Asn Lys Tyr Val Lys Ile Phe Asp Asn Phe		
145	150	155
Ser Asn Leu His Arg Arg Asn Ile Ser Asn Thr Gly Glu Lys Pro Phe		
165	170	175
Lys Cys Gln Glu Cys Gly Lys Ser Phe Gln Met Leu Ser Phe Leu Thr		
180	185	190
Glu His Gln Lys Ile His Thr Gly Lys Lys Phe Gln Lys Cys Gly Glu		
195	200	205
Cys Gly Lys Thr Phe Ile Gln Cys Ser His Phe Thr Glu Pro Glu Asn		
210	215	220
Ile Asp Thr Gly Glu Lys Pro Tyr Lys Cys Gln Glu Cys Asn Asn Val		
225	230	235
Ile Lys Thr Cys Ser Val Leu Thr Lys Asn Arg Ile Tyr Ala Gly Gly		
245	250	255
Glu His Tyr Arg Cys Glu Glu Phe Gly Lys Val Phe Asn Gln Cys Ser		
260	265	270
His Leu Thr Glu His Glu His Gly Thr Glu Glu Lys Pro Phe Lys Cys		
275	280	285
Glu Glu Cys Asp Ser Ile Phe Lys Trp Phe Ser Asp Leu Thr Lys His		
290	295	300
Lys Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asp Glu Cys Gly		
305	310	315
Lys Ala Tyr Thr Gln Ser Ser His Leu Ser Glu His Arg Arg Ile His		
325	330	335
Thr Gly Glu Lys Pro Tyr Gln Cys Glu Glu Cys Gly Lys Val Phe Arg		
340	345	350
Thr Cys Ser Ser Leu Ser Asn His Lys Arg Thr His Ser Glu Glu Lys		
355	360	365

Pro Tyr Thr Cys Glu Glu Cys Gly Asn Ile Phe Lys Gln Leu Ser Asp
 370 375 380
 Leu Thr Lys His Lys Lys Thr His Thr Gly Glu Lys Pro Tyr Lys Cys
 385 390 395 400
 Asp Glu Cys Gly Lys Asn Phe Thr Gln Ser Ser Asn Leu Ile Val His
 405 410 415
 Lys Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys Gly
 420 425 430
 Arg Val Phe Met Trp Phe Ser Asp Ile Thr Lys His Lys Lys Thr His
 435 440 445
 Thr Gly Glu Lys Pro Tyr Lys Cys Asp Glu Cys Gly Lys Asn Phe Thr
 450 455 460
 Gln Ser Ser Asn Leu Ile Val His Lys Arg Ile His Thr Gly Glu Lys
 465 470 475 480
 Pro Tyr Lys Cys Glu Lys Cys Gly Lys Ala Phe Thr Gln Phe Ser His
 485 490 495
 Leu Thr Val His Glu Ser Ile His Thr
 500 505

<210> 431
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 431
 Met Val Ala Pro Arg Lys Ile Arg Trp Cys Val Glu Glu Leu Pro Ser
 1 5 10 15
 His Cys Ser Leu His Ala Phe Leu Ser Ala Arg Cys Glu Gln Gly Arg

20	25	30
Pro Gly Thr Ala Asp Gly Leu His Leu Ser Asp Trp Thr Ala Thr Cys		
35	40	45
His Thr Phe Ile Glu Leu Ser Ile Ser Thr Ala Ala Val Leu Gly Val		
50	55	60
Leu Leu Gly Ser Arg Asn Lys Lys Phe Arg Glu Ala Lys Val Leu Gln		
65	70	75
Gly Cys Arg Gln Val Ile Glu Pro Ser Phe Ile Glu His Leu Leu Ser		
85	90	95
Ala Lys Tyr Ser Tyr Leu Arg Tyr Leu Val		
100	105	

<210> 432

<211> 410

<212> PRT

<213> Homo sapiens

<400> 432

Met Phe Val Trp Asn Gln Gly Ser Lys Tyr Ser Gly Ser Glu Val Leu			
1	5	10	15
Trp Cys Pro Leu His Trp Asn Ser Glu Glu Leu Ile Val Phe Trp Ser			
20	25	30	
Cys Val Leu Gln Val Leu Asp Trp His Arg Leu Ile Pro Leu Thr Trp			
35	40	45	
Ala Cys Met Ala Arg Gln Thr Pro His Leu Gly Glu Gln Arg Arg Thr			
50	55	60	
Thr Ala Ser Leu Leu Arg Lys Leu Thr Thr Ala Ser Asn Gly Gly Val			
65	70	75	80

Ile Glu Glu Leu Ser Cys Val Arg Ser Asn Asn Tyr Val Gln Glu Pro
 85 90 95
 Glu Cys Arg Arg Asn Leu Val Gln Cys Leu Leu Glu Lys Gln Gly Thr
 100 105 110
 Pro Val Val Gln Gly Ser Leu Glu Leu Glu Arg Val Met Ser Ser Leu
 115 120 125
 Leu Asp Met Gly Phe Ser Asn Ala His Ile Asn Glu Leu Leu Ser Val
 130 135 140
 Arg Arg Gly Ala Ser Leu Gln Gln Leu Leu Asp Ile Ile Ser Glu Phe
 145 150 155 160
 Ile Leu Leu Gly Leu Asn Pro Glu Pro Val Cys Val Val Leu Lys Lys
 165 170 175
 Ser Pro Gln Leu Leu Lys Leu Pro Ile Met Gln Met Arg Lys Arg Ser
 180 185 190
 Ser Tyr Leu Gln Lys Leu Gly Leu Gly Glu Gly Lys Leu Lys Arg Val
 195 200 205
 Leu Tyr Cys Cys Pro Glu Ile Phe Thr Met Arg Gln Gln Asp Ile Asn
 210 215 220
 Asp Thr Val Arg Leu Leu Lys Glu Lys Cys Leu Phe Thr Val Gln Gln
 225 230 235 240
 Val Thr Lys Ile Leu His Ser Cys Pro Ser Val Leu Arg Glu Asp Leu
 245 250 255
 Gly Gln Leu Glu Tyr Lys Phe Gln Tyr Ala Tyr Phe Arg Met Gly Ile
 260 265 270
 Lys His Pro Asp Ile Val Lys Ser Glu Tyr Leu Gln Tyr Ser Leu Thr
 275 280 285
 Lys Ile Lys Gln Arg His Ile Tyr Leu Glu Arg Leu Gly Arg Tyr Gln
 290 295 300
 Thr Pro Asp Lys Lys Gly Gln Thr Gln Ile Pro Asn Pro Leu Leu Lys

305	310	315	320
Asp Ile Leu Arg Val Ser Glu Ala Glu Phe Leu Ala Arg Thr Ala Cys			
325		330	335
Thr Ser Val Glu Glu Phe Gln Val Phe Lys Lys Leu Leu Ala Arg Glu			
340		345	350
Glu Glu Glu Ser Glu Ser Ser Thr Ser Asp Asp Lys Arg Ala Ser Leu			
355		360	365
Asp Glu Asp Glu Asp Asp Asp Glu Glu Asp Asn Asp Glu Asp Asp			
370		375	380
Asn Asp Glu Asp Asp Asp Asp Glu Asp Asp Asp Glu Ala Glu Asp Asn			
385		390	395
Asp Glu Asp Glu Asp Asp Asp Glu Glu Glu			
405		410	

<210> 433

<211> 340

<212> PRT

<213> Homo sapiens

<400> 433

Met Ala Met Gln Met Gln Leu Glu Ala Asn Ala Asp Thr Ser Val Glu			
1	5	10	15

Glu Glu Ser Phe Gly Pro Gln Pro Ile Ser Arg Leu Glu Gln Cys Gly			
20	25	30	

Ile Asn Ala Asn Asp Val Lys Lys Leu Glu Glu Ala Gly Phe His Thr			
35	40	45	

Val Glu Ala Val Ala Tyr Ala Pro Lys Lys Glu Leu Ile Asn Ile Lys			
50	55	60	

Gly Ile Ser Glu Ala Lys Ala Asp Lys Ile Leu Thr Glu Ser Arg Ser
 65 70 75 80
 Val Ala Arg Leu Glu Cys Asn Ser Val Ile Leu Val Tyr Cys Thr Leu
 85 90 95
 Arg Leu Ser Gly Ser Ser Asp Ser Pro Ala Ser Ala Ser Arg Val Val
 100 105 110
 Gly Thr Thr Gly Gly Ile Glu Thr Gly Ser Ile Thr Glu Met Phe Gly
 115 120 125
 Glu Phe Arg Thr Gly Lys Thr Gln Ile Cys His Thr Leu Ala Val Thr
 130 135 140
 Cys Gln Leu Pro Ile Asp Arg Gly Gly Glu Gly Lys Ala Met Tyr
 145 150 155 160
 Ile Asp Thr Glu Gly Thr Phe Arg Pro Glu Arg Leu Leu Ala Val Ala
 165 170 175
 Glu Arg Tyr Gly Leu Ser Gly Ser Asp Val Leu Asp Asn Val Ala Tyr
 180 185 190
 Ala Arg Ala Phe Asn Thr Asp His Gln Thr Gln Leu Leu Tyr Gln Ala
 195 200 205
 Ser Ala Met Met Val Glu Ser Arg Tyr Ala Leu Leu Ile Val Asp Ser
 210 215 220
 Ala Thr Ala Leu Tyr Arg Thr Asp Tyr Ser Gly Arg Gly Glu Leu Ser
 225 230 235 240
 Ala Arg Gln Met His Leu Ala Arg Phe Leu Arg Met Leu Leu Arg Leu
 245 250 255
 Ala Asp Glu Phe Gly Val Ala Val Val Ile Thr Asn Gln Val Val Ala
 260 265 270
 Gln Val Asp Gly Ala Ala Met Phe Ala Ala Asp Pro Lys Lys Pro Ile
 275 280 285
 Gly Gly Asn Ile Ile Ala His Ala Ser Thr Thr Arg Leu Tyr Leu Arg

290	295	300													
Lys	Gly	Arg	Gly	Glu	Thr	Arg	Ile	Cys	Lys	Ile	Tyr	Asp	Ser	Pro	Cys
305															
Leu	Pro	Glu	Ala	Glu	Ala	Met	Phe	Ala	Ile	Asn	Ala	Asp	Gly	Val	Gly
			325					330							335
Asp	Ala	Lys	Asp												
				340											

<210> 434

<211> 698

<212> PRT

<213> Homo sapiens

<400> 434

Met Glu Thr Arg Gly Leu Ala Asp Ser Gly Gln Gly Ser Phe Thr Gly

1 5 10 15

Gln Gly Ile Ala Arg Phe Gly Arg Ile Gln Lys Lys Ser Gln Pro Glu

20 25 30

Lys Val Val Arg Ala Ala Ser Arg Gly Arg Pro Leu Ile Gly Trp Thr

35 40 45

Gln Trp Cys Ala Glu Asp Gly Gly Asp Glu Ser Glu Met Ala Leu Ala

50 55 60

Gly Ser Pro Gly Cys Ser Ser Gly Pro Gln Gly Arg Leu Ser Arg Leu

65 70 75 80

Ile Phe Leu Leu Arg Arg Trp Ala Ala Arg His Val His His Gln Asp

85 90 95

Gln Gly Pro Asp Ser Phe Pro Asp Arg Phe Arg Gly Ala Glu Leu Lys

100 105 110

Glu Val Ser Ser Gln Glu Ser Asn Ala Gln Ala Asn Val Gly Ser Gln
 115 120 125
 Glu Pro Ala Asp Arg Gly Arg Ser Ala Trp Pro Leu Ala Lys Cys Asn
 130 135 140
 Thr Asn Thr Ser Asn Asn Thr Glu Glu Glu Lys Lys Thr Lys Lys Lys
 145 150 155 160
 Asp Ala Ile Val Val Asp Pro Ser Ser Asn Leu Tyr Tyr Arg Trp Leu
 165 170 175
 Thr Ala Ile Ala Leu Pro Val Phe His Asn Trp Tyr Leu Leu Ile Cys
 180 185 190
 Arg Ala Cys Phe Asp Glu Leu Gln Ser Glu Tyr Leu Met Leu Trp Leu
 195 200 205
 Val Leu Asp Tyr Ser Ala Asp Val Leu Tyr Val Leu Asp Val Leu Val
 210 215 220
 Arg Ala Arg Thr Gly Phe Leu Glu Gln Gly Leu Met Val Ser Asp Thr
 225 230 235 240
 Asn Arg Leu Trp Gln His Tyr Lys Thr Thr Gln Phe Lys Leu Asp
 245 250 255
 Val Leu Ser Leu Val Pro Thr Asp Leu Ala Tyr Leu Lys Val Gly Thr
 260 265 270
 Asn Tyr Pro Glu Val Arg Phe Asn Arg Leu Leu Lys Phe Ser Arg Leu
 275 280 285
 Phe Glu Phe Phe Asp Arg Thr Glu Thr Arg Thr Asn Tyr Pro Asn Met
 290 295 300
 Phe Arg Ile Gly Asn Leu Val Leu Tyr Ile Leu Ile Ile His Trp
 305 310 315 320
 Asn Ala Cys Ile Tyr Phe Ala Ile Ser Lys Phe Ile Gly Phe Gly Thr
 325 330 335
 Asp Ser Trp Val Tyr Pro Asn Ile Ser Ile Pro Glu His Gly Arg Leu

340	345	350
Ser Arg Lys Tyr Ile Tyr Ser Leu Tyr Trp Ser Thr Leu Thr Leu Thr		
355	360	365
Thr Ile Gly Glu Thr Pro Pro Pro Val Lys Asp Glu Glu Tyr Leu Phe		
370	375	380
Val Val Val Asp Phe Leu Val Gly Val Leu Ile Phe Ala Thr Ile Val		
385	390	395
Gly Asn Val Gly Ser Met Ile Ser Asn Met Asn Ala Ser Arg Ala Glu		
405	410	415
Phe Gln Ala Lys Ile Asp Ser Ile Lys Gln Tyr Met Gln Phe Arg Lys		
420	425	430
Val Thr Lys Asp Leu Glu Thr Arg Val Ile Arg Trp Phe Asp Tyr Leu		
435	440	445
Trp Ala Asn Lys Lys Thr Val Asp Glu Lys Glu Val Leu Lys Ser Leu		
450	455	460
Pro Asp Lys Leu Lys Ala Glu Ile Ala Ile Asn Val His Leu Asp Thr		
465	470	475
Leu Lys Lys Val Arg Ile Phe Gln Asp Cys Glu Ala Gly Leu Leu Val		
485	490	495
Glu Leu Val Leu Lys Leu Arg Pro Thr Val Phe Ser Pro Gly Asp Tyr		
500	505	510
Ile Cys Lys Lys Gly Asp Ile Gly Lys Glu Met Tyr Ile Ile Asn Glu		
515	520	525
Gly Lys Leu Ala Val Val Ala Asp Asp Gly Val Thr Gln Phe Val Val		
530	535	540
Leu Ser Asp Gly Ser Tyr Phe Gly Glu Ile Ser Ile Leu Asn Ile Lys		
545	550	555
Gly Ser Lys Ser Gly Asn Arg Arg Thr Ala Asn Ile Arg Ser Ile Gly		
565	570	575

Tyr Ser Asp Leu Phe Cys Leu Ser Lys Asp Asp Leu Met Glu Ala Leu
 580 585 590
 Thr Glu Tyr Pro Glu Ala Lys Lys Ala Leu Glu Glu Lys Gly Arg Gln
 595 600 605
 Ile Leu Met Lys Asp Asn Leu Ile Asp Glu Glu Leu Ala Arg Ala Gly
 610 615 620
 Ala Asp Pro Lys Asp Leu Glu Glu Lys Val Glu Gln Leu Gly Ser Ser
 625 630 635 640
 Leu Asp Thr Leu Gln Thr Arg Phe Ala Arg Leu Leu Ala Glu Tyr Asn
 645 650 655
 Ala Thr Gln Met Lys Met Lys Gln Arg Leu Ser Gln Leu Glu Ser Gln
 660 665 670
 Val Lys Gly Gly Asp Lys Pro Leu Ala Asp Gly Glu Val Pro Gly
 675 680 685
 Asp Ala Thr Lys Thr Glu Asp Lys Gln Gln
 690 695

<210> 435

<211> 544

<212> PRT

<213> Homo sapiens

<400> 435

Met Asp Gly Leu Asp Asn Arg Gly Glu Ile Val Val Ile Gly Ala Thr
 1 5 10 15
 Asn Arg Leu Asp Ser Ile Asp Pro Ala Leu Arg Arg Pro Gly Arg Phe
 20 25 30
 Asp Arg Glu Phe Leu Phe Asn Leu Pro Asp Gln Lys Ala Arg Lys His

35	40	45
Ile Leu Gln Ile His Thr Arg Asp Trp Asn Pro Lys Leu Ser Asp Ala		
50	55	60
Phe Leu Gly Glu Leu Ala Glu Lys Cys Val Gly Tyr Cys Gly Ala Asp		
65	70	75
Ile Lys Ala Leu Cys Thr Glu Ala Ala Leu Ile Ala Leu Arg Arg Arg		
85	90	95
Tyr Pro Gln Ile Tyr Ala Ser Ser His Lys Leu Gln Leu Asp Val Ser		
100	105	110
Ser Ile Val Leu Ser Ala Gln Asp Phe Tyr His Ala Met Gln Asn Ile		
115	120	125
Val Pro Ala Ser Gln Arg Ala Val Met Ser Ser Gly His Ala Leu Ser		
130	135	140
Pro Ile Ile Arg Pro Leu Leu Glu Arg Ser Phe Asn Asn Ile Leu Ala		
145	150	155
Val Leu Gln Lys Val Phe Pro His Ala Glu Ile Ser Gln Ser Asp Lys		
165	170	175
Lys Glu Asp Ile Glu Thr Leu Ile Leu Glu Asp Ser Glu Asp Glu Asn		
180	185	190
Ala Leu Ser Ile Phe Glu Thr Asn Cys His Ser Gly Ser Pro Lys Lys		
195	200	205
Gln Ser Ser Ser Ala Ala Ile His Lys Pro Tyr Leu His Phe Thr Met		
210	215	220
Ser Pro Tyr His Gln Pro Thr Ser Tyr Arg Pro Arg Leu Leu Leu Ser		
225	230	235
Gly Glu Arg Gly Ser Gly Gln Thr Ser His Leu Ala Pro Ala Leu Leu		
245	250	255
His Thr Leu Glu Arg Phe Ser Val His Arg Leu Asp Leu Pro Ala Leu		
260	265	270

Tyr Ser Val Ser Ala Lys Thr Pro Glu Glu Ser Cys Ala Gln Ile Phe
 275 280 285
 Arg Glu Ala Arg Arg Thr Val Pro Ser Ile Val Tyr Met Pro His Ile
 290 295 300
 Gly Asp Trp Trp Glu Ala Val Ser Glu Thr Val Arg Ala Thr Phe Leu
 305 310 315 320
 Thr Leu Leu Gln Asp Ile Pro Ser Phe Ser Pro Ile Phe Leu Leu Ser
 325 330 335
 Thr Ser Glu Thr Met Tyr Ser Glu Leu Pro Glu Glu Val Lys Cys Ile
 340 345 350
 Phe Arg Ile Gln Tyr Glu Glu Val Leu Tyr Ile Gln Arg Pro Ile Glu
 355 360 365
 Glu Asp Arg Arg Lys Phe Phe Gln Glu Leu Ile Leu Asn Gln Ala Ser
 370 375 380
 Met Ala Pro Pro Arg Arg Lys His Ala Ala Leu Cys Ala Met Glu Val
 385 390 395 400
 Leu Pro Leu Ala Leu Pro Ser Pro Pro Arg Gln Leu Ser Glu Ser Glu
 405 410 415
 Lys Ser Arg Met Glu Asp Gln Glu Glu Asn Thr Leu Arg Glu Leu Arg
 420 425 430
 Leu Phe Leu Arg Asp Val Thr Lys Arg Leu Ala Thr Asp Lys Arg Phe
 435 440 445
 Asn Ile Phe Ser Lys Pro Val Asp Ile Glu Glu Val Ser Asp Tyr Leu
 450 455 460
 Glu Val Ile Lys Glu Pro Met Asp Leu Ser Thr Val Ile Thr Lys Ile
 465 470 475 480
 Asp Lys His Asn Tyr Leu Thr Ala Lys Asp Phe Leu Lys Asp Ile Asp
 485 490 495
 Leu Ile Cys Ser Asn Ala Leu Glu Tyr Asn Pro Asp Lys Asp Pro Gly

500	505	510
Asp Lys Ile Ile Arg His Arg Ala Cys Thr Leu Lys Asp Thr Ala His		
515	520	525
Ala Ile Ile Ala Ala Glu Leu Asp Pro Glu Phe Asn Lys Leu Cys Glu		
530	535	540

<210> 436

<211> 334

<212> PRT

<213> Homo sapiens

<400> 436

Met Val Gly Gln Gly Cys Ser Leu Glu Pro Arg Leu Asp Leu Arg Pro			
1	5	10	15
Leu Gly Asn Pro Arg Ser Lys Gln Ser Arg His Gln Ser Trp Val Trp			
20	25	30	
Glu Arg Gln Glu Gly Glu Arg Asn Gly Gly Ser Lys Glu Gly Lys Glu			
35	40	45	
Gly Gly Arg Gly Gly Ser Lys Thr Val Ile Pro Ile Pro Ile Ser Asp			
50	55	60	
Leu Glu Leu Ala Ser Thr Pro Val His Pro Cys Arg Gly Gly Pro Ser			
65	70	75	80
Pro Gln Leu Leu Pro Arg Glu Tyr Gly Gly Val Gly Ile Leu Trp			
85	90	95	
Leu Ser Ser Leu Pro Leu Leu Cys Arg Leu Met Leu Gly Phe Met Gly			
100	105	110	
Val Thr Ala Leu Leu Ser Met Trp Ile Ser Asn Thr Ala Thr Thr Ala			
115	120	125	

Met Met Val Pro Ile Val Glu Ala Ile Leu Gln Gln Met Glu Ala Thr
 130 135 140
 Ser Ala Ala Thr Glu Ala Gly Leu Glu Leu Val Asp Lys Gly Lys Ala
 145 150 155 160
 Lys Glu Leu Pro Gly Ser Gln Val Ile Phe Glu Gly Pro Thr Leu Gly
 165 170 175
 Gln Gln Glu Asp Gln Glu Arg Lys Arg Leu Cys Lys Ala Met Thr Leu
 180 185 190
 Cys Ile Cys Tyr Ala Ala Ser Ile Gly Gly Thr Ala Thr Leu Thr Gly
 195 200 205
 Thr Gly Pro Asn Val Val Leu Leu Gly Gln Met Asn Glu Leu Phe Pro
 210 215 220
 Asp Ser Lys Asp Leu Val Asn Phe Ala Ser Trp Phe Ala Phe Ala Phe
 225 230 235 240
 Pro Asn Met Leu Val Met Leu Leu Phe Ala Trp Leu Trp Leu Gln Phe
 245 250 255
 Val Tyr Met Arg Phe Asn Phe Lys Lys Ser Trp Gly Cys Gly Leu Glu
 260 265 270
 Ser Lys Lys Asn Glu Lys Ala Ala Leu Lys Val Leu Gln Glu Glu Tyr
 275 280 285
 Arg Lys Leu Gly Pro Leu Ser Phe Ala Glu Ile Asn Val Leu Ile Cys
 290 295 300
 Phe Phe Leu Leu Val Ile Leu Trp Phe Ser Arg Asp Pro Gly Phe Met
 305 310 315 320
 Pro Gly Trp Leu Thr Val Ala Trp Val Glu Gly Glu Thr Lys
 325 330

<211> 451

<212> PRT

<213> Homo sapiens

<400> 437

Met Asn Lys Ala Pro Gln Ser Thr Gly Pro Pro Pro Ala Pro Ser Pro

1 5 10 15

Gly Leu Pro Gln Pro Ala Phe Pro Pro Gly Gln Thr Ala Pro Val Val

20 25 30

Phe Ser Thr Pro Gln Ala Thr Gln Met Asn Thr Pro Ser Gln Pro Arg

35 40 45

Gln His Phe Tyr Pro Ser Arg Ala Gln Pro Pro Ser Ser Ala Ala Ser

50 55 60

Arg Val Gln Ser Ala Ala Pro Ala Arg Pro Gly Pro Ala Ala Leu Pro

65 70 75 80

Pro Val Ser Pro Leu Lys Ala Ala Leu Ser Glu Glu Glu Leu Glu Lys

85 90 95

Lys Ser Lys Ala Ile Ile Glu Glu Tyr Leu His Leu Asn Asp Met Lys

100 105 110

Glu Ala Val Gln Cys Val Gln Glu Leu Ala Ser Pro Ser Leu Leu Phe

115 120 125

Ile Phe Val Arg His Gly Val Glu Ser Thr Leu Glu Arg Ser Ala Ile

130 135 140

Ala Arg Glu His Met Gly Gln Leu Leu His Gln Leu Leu Cys Ala Gly

145 150 155 160

His Leu Ser Thr Ala Gln Tyr Tyr Gln Gly Leu Tyr Glu Ile Leu Glu

165 170 175

Leu Ala Glu Asp Met Glu Ile Asp Ile Pro His Val Trp Leu Tyr Leu

180 185 190

Ala Glu Leu Val Thr Pro Ile Leu Gln Glu Gly Gly Val Pro Met Gly
 195 200 205
 Glu Leu Phe Arg Glu Ile Thr Lys Pro Leu Arg Pro Leu Gly Lys Ala
 210 215 220
 Ala Ser Leu Leu Leu Glu Ile Leu Gly Leu Leu Cys Lys Ser Met Gly
 225 230 235 240
 Pro Lys Lys Val Gly Thr Leu Trp Arg Glu Ala Gly Leu Ser Trp Lys
 245 250 255
 Glu Phe Leu Pro Glu Gly Gln Asp Ile Gly Ala Phe Val Ala Glu Gln
 260 265 270
 Lys Val Glu Tyr Thr Leu Gly Glu Glu Ser Glu Ala Pro Gly Gln Arg
 275 280 285
 Ala Leu Pro Ser Glu Glu Leu Asn Arg Gln Leu Glu Lys Leu Leu Lys
 290 295 300
 Glu Gly Ser Ser Asn Gln Arg Val Phe Asp Trp Ile Glu Ala Asn Leu
 305 310 315 320
 Ser Glu Gln Gln Ile Val Ser Asn Thr Leu Val Arg Ala Leu Met Thr
 325 330 335
 Ala Val Cys Tyr Ser Ala Ile Ile Phe Glu Thr Pro Leu Arg Val Asp
 340 345 350
 Val Ala Val Leu Lys Ala Arg Ala Lys Leu Leu Gln Lys Tyr Leu Cys
 355 360 365
 Asp Glu Gln Lys Glu Leu Gln Ala Leu Tyr Ala Leu Gln Ala Leu Val
 370 375 380
 Val Thr Leu Glu Gln Pro Pro Asn Leu Leu Arg Met Phe Phe Asp Ala
 385 390 395 400
 Leu Tyr Asp Glu Asp Val Val Lys Glu Asp Ala Phe Tyr Ser Trp Glu
 405 410 415
 Ser Ser Lys Asp Pro Ala Glu Gln Gln Gly Lys Gly Val Ala Leu Lys

420	425	430
Ser Val Thr Ala Phe Phe Lys Trp Leu Arg Glu Ala Glu Glu Glu Ser		
435	440	445
Asp His Asn		
450		

<210> 438

<211> 694

<212> PRT

<213> Homo sapiens

<400> 438

Met Glu Arg Ala Met Glu Gln Leu Asn Arg Leu Thr Arg Ser Leu Arg

1	5	10	15
---	---	----	----

Arg Ala Arg Thr Val Glu Leu Pro Glu Asp Asn Glu Thr Ala Val Tyr

20	25	30
----	----	----

Thr Leu Met Pro Met Val Met Ala Asp Gln His Arg Ser Val Ser Glu

35	40	45
----	----	----

Leu Leu Ser Asn Ser Lys Phe Asp Val Asn Tyr Ala Phe Gly Arg Val

50	55	60
----	----	----

Lys Arg Ser Leu Leu His Ile Ala Ala Asn Cys Gly Ser Val Glu Cys

65	70	75	80
----	----	----	----

Leu Val Leu Leu Leu Lys Lys Gly Ala Asn Pro Asn Tyr Gln Asp Ile

85	90	95
----	----	----

Ser Gly Cys Thr Pro Leu His Leu Ala Ala Arg Asn Gly Gln Lys Lys

100	105	110
-----	-----	-----

Cys Met Ser Lys Leu Leu Glu Tyr Ser Ala Asp Val Asn Ile Cys Asn

115	120	125
-----	-----	-----

Asn Glu Gly Pro Thr Ala Ile His Trp Leu Ala Val Asn Gly Arg Thr
 130 135 140
 Glu Leu Leu His Asp Leu Val Gln His Val Ser Asp Val Asp Val Glu
 145 150 155 160
 Asp Ala Met Gly Gln Thr Ala Leu His Val Ala Cys Gln Asn Gly His
 165 170 175
 Lys Thr Thr Val Gln Cys Leu Leu Asp Ser Gly Ala Asp Ile Asn Arg
 180 185 190
 Pro Asn Val Ser Gly Ala Thr Pro Leu Tyr Phe Ala Cys Ser His Gly
 195 200 205
 Gln Arg Asp Thr Ala Gln Ile Leu Leu Leu Arg Gly Ala Lys Tyr Leu
 210 215 220
 Pro Asp Lys Asn Gly Val Thr Pro Leu Asp Leu Cys Val Gln Gly Gly
 225 230 235 240
 Tyr Gly Glu Thr Cys Glu Val Leu Ile Gln Tyr His Pro Arg Leu Phe
 245 250 255
 Gln Thr Ile Ile Gln Met Thr Gln Asn Glu Asp Leu Arg Glu Asn Met
 260 265 270
 Leu Arg Gln Val Leu Glu His Leu Ser Gln Gln Ser Glu Ser Gln Tyr
 275 280 285
 Leu Lys Ile Leu Thr Ser Leu Ala Glu Val Ser Thr Thr Asn Gly His
 290 295 300
 Lys Leu Leu Ser Leu Ser Ser Asn Tyr Asp Ala Gln Met Lys Ser Leu
 305 310 315 320
 Leu Arg Ile Val Arg Met Phe Cys His Val Phe Arg Ile Gly Pro Ser
 325 330 335
 Ser Pro Ser Asn Gly Ile Asp Met Gly Tyr Asn Gly Asn Lys Thr Pro
 340 345 350
 Arg Ser Gln Val Phe Lys Pro Leu Glu Leu Leu Trp His Ser Leu Asp

355	360	365
Glu Trp Leu Val Leu Ile Ala Thr Glu Leu Met Lys Asn Lys Arg Asp		
370	375	380
Ser Thr Glu Ile Thr Ser Ile Leu Leu Lys Gln Lys Gly Gln Asp Gln		
385	390	395
Asp Ala Ala Ser Ile Pro Pro Phe Glu Pro Pro Gly Pro Gly Ser Tyr		
405	410	415
Glu Asn Leu Ser Thr Gly Thr Arg Glu Ser Lys Pro Asp Ala Leu Ala		
420	425	430
Gly Arg Gln Glu Ala Ser Ala Asp Cys Gln Asp Val Ile Ser Met Thr		
435	440	445
Ala Asn Arg Leu Ser Ala Val Ile Gln Ala Phe Tyr Met Cys Cys Ser		
450	455	460
Cys Gln Met Pro Pro Gly Met Thr Ser Pro Arg Phe Ile Glu Phe Val		
465	470	475
Cys Lys His Asp Glu Val Leu Lys Cys Phe Val Asn Arg Asn Pro Lys		
485	490	495
Ile Ile Phe Asp His Phe His Phe Leu Leu Glu Cys Pro Glu Leu Met		
500	505	510
Ser Arg Phe Met His Ile Ile Lys Ala Gln Ala Glu Tyr Val Gln Leu		
515	520	525
Val Thr Glu Leu Arg Met Thr Arg Ala Ile Gln Pro Gln Ile Asn Ala		
530	535	540
Phe Leu Gln Gly Phe His Met Phe Ile Pro Pro Ser Leu Ile Gln Leu		
545	550	555
Phe Asp Glu Tyr Glu Leu Glu Leu Leu Ser Gly Met Pro Glu Ile		
565	570	575
Asp Val Ser Asp Trp Ile Lys Asn Thr Glu Tyr Thr Ser Gly Tyr Glu		
580	585	590

Arg Glu Asp Pro Val Ile Gln Trp Phe Trp Glu Val Val Glu Asp Ile
 595 600 605
 Thr Gln Glu Glu Arg Val Leu Leu Leu Gln Phe Val Thr Gly Ser Ser
 610 615 620
 Arg Val Pro His Gly Gly Phe Ala Asn Ile Met Gly Gly Ser Gly Leu
 625 630 635 640
 Gln Asn Phe Thr Ile Ala Ala Val Pro Tyr Thr Pro Asn Leu Leu Pro
 645 650 655
 Thr Ser Ser Thr Cys Ile Asn Met Leu Lys Leu Pro Glu Tyr Pro Ser
 660 665 670
 Lys Glu Ile Leu Lys Asp Arg Leu Leu Val Ala Leu His Cys Gly Ser
 675 680 685
 Tyr Gly Tyr Thr Met Ala
 690

<210> 439

<211> 649

<212> PRT

<213> Homo sapiens

<400> 439

Met Pro Lys Ala Glu Ala Asn Leu Gly Gly Leu Ser Ser Leu Val Val
 1 5 10 15
 Asn Thr Pro Ile Thr Ser Val Ser Leu Ser His Ser Ser Ser Glu Ser
 20 25 30
 Ser Lys Met Ser Glu Ser Lys Asp Gln Glu Asn Asn Cys Glu Arg Pro
 35 40 45
 Lys Glu Ser Asn Val Leu His Pro Asn Gly Glu Cys Pro Val Lys Ser

50	55	60
Glu Pro Thr Glu Pro Gly Asp Glu Asp Glu Asp Ala Tyr Ser Asn		
65	70	75
Glu Leu Asp Asp Glu Glu Val Leu Gly Glu Leu Thr Asp Ser Ile Gly		
85	90	95
Asn Lys Asp Phe Pro Leu Leu Asn Gln Ser Ile Ser Pro Leu Ser Ser		
100	105	110
Ser Val Leu Lys Phe Ile Glu Lys Gly Thr Ser Ser Ser Ala Thr		
115	120	125
Val Ser Asp Asp Thr Glu Lys Lys Gln Thr Ala Ala Val Arg Ala		
130	135	140
Ser Gly Ser Val Ala Ser Asn Tyr Gly Ile Ser Gly Lys Asp Phe Ala		
145	150	155
Asp Ala Ser Ala Ser Lys Asp Ser Ala Thr Ala Ala His Pro Ser Glu		
165	170	175
Ile Ala Arg Gly Asp Glu Asp Ser Ser Ala Thr Pro His Gln His Gly		
180	185	190
Phe Thr Pro Ser Thr Pro Gly Thr Pro Gly Pro Gly Gly Asp Gly Ser		
195	200	205
Pro Gly Ser Gly Ile Glu Cys Pro Lys Cys Asp Thr Val Leu Gly Ser		
210	215	220
Ser Arg Ser Leu Gly Gly His Met Thr Met Met His Ser Arg Asn Ser		
225	230	235
Cys Lys Thr Leu Lys Cys Pro Lys Cys Asn Trp His Tyr Lys Tyr Gln		
245	250	255
Gln Thr Leu Glu Ala His Met Lys Glu Lys His Pro Glu Pro Gly Gly		
260	265	270
Ser Cys Val Tyr Cys Lys Thr Gly Gln Pro His Pro Arg Leu Ala Arg		
275	280	285

Gly Glu Ser Tyr Thr Cys Gly Tyr Lys Pro Phe Arg Cys Glu Val Cys
 290 295 300
 Asn Tyr Ser Thr Thr Lys Gly Asn Leu Ser Ile His Met Gln Ser
 305 310 315 320
 Asp Lys His Leu Asn Asn Val Gln Asn Leu Gln Asn Gly Asn Gly Glu
 325 330 335
 Gln Val Phe Gly His Ser Ala Pro Ala Pro Asn Thr Ser Leu Ser Gly
 340 345 350
 Cys Gly Thr Pro Ser Pro Ser Lys Pro Lys Gln Lys Pro Thr Trp Arg
 355 360 365
 Cys Glu Val Cys Asp Tyr Glu Thr Asn Val Ala Arg Asn Leu Arg Ile
 370 375 380
 His Met Thr Ser Glu Lys His Met His Asn Met Met Leu Leu Gln Gln
 385 390 395 400
 Asn Met Lys Gln Ile Gln His Asn Leu His Leu Gly Leu Ala Pro Ala
 405 410 415
 Glu Ala Glu Leu Tyr Gln Tyr Leu Ala Gln Asn Ile Gly Leu Thr
 420 425 430
 Gly Met Lys Leu Glu Asn Pro Ala Asp Pro Gln Leu Met Ile Asn Pro
 435 440 445
 Phe Gln Leu Asp Pro Ala Thr Ala Ala Leu Ala Pro Gly Leu Gly
 450 455 460
 Glu Leu Ser Pro Tyr Ile Ser Asp Pro Ala Leu Lys Leu Phe Gln Cys
 465 470 475 480
 Ala Val Cys Asn Lys Phe Thr Ser Asp Ser Leu Glu Ala Leu Ser Val
 485 490 495
 His Val Ser Ser Glu Arg Ser Leu Pro Glu Glu Glu Trp Arg Ala Val
 500 505 510
 Ile Gly Asp Ile Tyr Gln Cys Lys Leu Cys Asn Tyr Asn Thr Gln Leu

515	520	525
Lys Ala Asn Phe Gln Leu His Cys Glu Thr Asp Lys His Met Gln Lys		
530	535	540
Tyr Gln Leu Val Ala His Ile Lys Glu Gly Gly Lys Ser Asn Glu Trp		
545	550	555
Arg Leu Lys Cys Ile Ala Ile Gly Asn Pro Val His Leu Lys Cys Asn		560
565	570	575
Ala Cys Asp Tyr Tyr Thr Asn Ser Val Asp Lys Leu Arg Leu His Thr		
580	585	590
Thr Asn His Arg His Glu Ala Ala Leu Lys Leu Tyr Lys Val Ser Ser		
595	600	605
Asp Ile His Phe Arg Trp His Arg Val Glu Lys Gly Ile Asn Ser Phe		
610	615	620
Arg Ala Trp Ser Thr Ser Leu Gln Leu Lys Glu Lys Lys Arg Glu Lys		
625	630	635
Thr Ser Lys Gly Arg Gly His Ser Phe		640
645		

<210> 440

<211> 808

<212> PRT

<213> Homo sapiens

<400> 440

Met Leu Glu Gly His Glu Ser Tyr Asp Thr Glu Asn Phe Tyr Phe Arg

1

5

10

15

Glu Ile Arg Lys Asn Leu Gln Glu Val Asp Phe Gln Trp Lys Asp Gly

20

25

30

Glu Ile Asn Tyr Lys Glu Gly Pro Met Thr His Lys Asn Asn Leu Thr
 35 40 45
 Gly Gln Arg Val Arg His Ser Gln Gly Asp Val Glu Asn Lys His Met
 50 55 60
 Glu Asn Gln Leu Ile Leu Arg Phe Gln Ser Gly Leu Gly Glu Leu Gln
 65 70 75 80
 Lys Phe Gln Thr Ala Glu Lys Ile Tyr Gly Cys Asn Gln Ile Glu Arg
 85 90 95
 Thr Val Asn Asn Cys Phe Leu Ala Ser Pro Leu Gln Arg Ile Phe Pro
 100 105 110
 Gly Val Gln Thr Asn Ile Ser Arg Lys Tyr Gly Asn Asp Phe Leu Gln
 115 120 125
 Leu Ser Leu Pro Thr Gln Asp Glu Lys Thr His Ile Arg Glu Lys Pro
 130 135 140
 Tyr Ile Gly Asn Glu Cys Gly Lys Ala Phe Arg Val Ser Ser Ser Leu
 145 150 155 160
 Ile Asn His Gln Met Ile His Thr Thr Glu Lys Pro Tyr Arg Cys Asn
 165 170 175
 Glu Ser Gly Lys Ala Phe His Arg Gly Ser Leu Leu Thr Val His Gln
 180 185 190
 Ile Val His Thr Arg Gly Lys Pro Tyr Gln Cys Asp Val Cys Gly Arg
 195 200 205
 Ile Phe Arg Gln Asn Ser Asp Leu Val Asn His Arg Arg Ser His Thr
 210 215 220
 Gly Asp Lys Pro Tyr Ile Cys Asn Glu Cys Gly Lys Ser Phe Ser Lys
 225 230 235 240
 Ser Ser His Leu Ala Val His Gln Arg Ile His Thr Gly Glu Lys Pro
 245 250 255
 Tyr Lys Cys Asn Arg Cys Gly Lys Cys Phe Ser Gln Ser Ser Ser Leu

260	265	270
Ala Thr His Gln Thr Val His Thr Gly Asp Lys Pro Tyr Lys Cys Asn		
275	280	285
Glu Cys Gly Lys Thr Phe Lys Arg Asn Ser Ser Leu Thr Ala His His		
290	295	300
Ile Ile His Ala Gly Lys Lys Pro Tyr Thr Cys Asp Val Cys Gly Lys		
305	310	315
Val Phe Tyr Gln Asn Ser Gln Leu Val Arg His Gln Ile Ile His Thr		
325	330	335
Gly Glu Thr Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Phe Gln		
340	345	350
Arg Ser Arg Leu Ala Gly His Arg Arg Ile His Thr Gly Glu Lys Pro		
355	360	365
Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Ser Gln His Ser His Leu		
370	375	380
Ala Val His Gln Arg Val His Thr Gly Glu Lys Pro Tyr Lys Cys Asn		
385	390	395
Glu Cys Gly Lys Ala Phe Asn Trp Gly Ser Leu Leu Thr Val His Gln		
405	410	415
Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Val Cys Gly Lys		
420	425	430
Val Phe Asn Tyr Gly Gly Tyr Leu Ser Val His Met Arg Cys His Thr		
435	440	445
Gly Glu Lys Pro Leu His Cys Asn Lys Cys Gly Met Val Phe Thr Tyr		
450	455	460
Tyr Ser Cys Leu Ala Arg His Gln Arg Met His Thr Gly Glu Lys Pro		
465	470	475
Tyr Lys Cys Asn Val Cys Gly Lys Val Phe Ile Asp Ser Gly Asn Leu		
485	490	495

Ser Ile His Arg Arg Ser His Thr Gly Glu Lys Pro Phe Gln Cys Asn
 500 505 510
 Glu Cys Gly Lys Val Phe Ser Tyr Tyr Ser Cys Leu Ala Arg His Arg
 515 520 525
 Lys Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Asp Cys Gly Lys
 530 535 540
 Ala Tyr Thr Gln Arg Ser Ser Leu Thr Lys His Leu Val Ile His Thr
 545 550 555 560
 Gly Glu Asn Pro Tyr His Cys Asn Glu Phe Gly Glu Ala Phe Ile Gln
 565 570 575
 Ser Ser Lys Leu Ala Arg Tyr His Arg Asn Pro Thr Gly Glu Lys Pro
 580 585 590
 His Lys Cys Ser Glu Cys Gly Arg Thr Phe Ser His Lys Thr Ser Leu
 595 600 605
 Val Tyr His Gln Arg Arg His Thr Gly Glu Met Pro Tyr Lys Cys Ile
 610 615 620
 Glu Cys Gly Lys Val Phe Asn Ser Thr Thr Leu Ala Arg His Arg
 625 630 635 640
 Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys
 645 650 655
 Val Phe Arg Tyr Arg Ser Gly Leu Ala Arg His Trp Ser Ile His Thr
 660 665 670
 Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Arg Val
 675 680 685
 Arg Ser Ile Leu Leu Asn His Gln Met Met His Thr Gly Glu Lys Pro
 690 695 700
 Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Ile Glu Arg Ser Asn Leu
 705 710 715 720
 Val Tyr His Gln Arg Asn His Thr Gly Glu Lys Pro Tyr Lys Cys Met

725	730	735
Glu Cys Gly Lys Ala Phe Gly Arg Arg Ser Cys Leu Thr Lys His Gln		
740	745	750
Arg Ile His Ser Ser Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys		
755	760	765
Ser Tyr Ile Ser Arg Ser Gly Leu Thr Lys His Gln Ile Lys His Ala		
770	775	780
Gly Glu Asn Leu Thr Thr Lys Leu Asn Val Glu Arg Pro Leu Asp Val		
785	790	795
Val Leu Thr Ser Gly Ile Pro Lys		
805		

<210> 441
 <211> 602
 <212> PRT
 <213> Homo sapiens

<400> 441			
Met Ile Gln Ser Gly Lys Gly Ala Asp Pro Pro Asp Lys Lys Asp Met			
1	5	10	15
Lys Leu Ser Thr Ala Thr Asn Pro Gln Asn Gly Leu Ser Gln Ile Leu			
20	25	30	
Arg Leu Val Leu Gln Glu Leu Ser Leu Phe Tyr Ser Arg Asp Val Asn			
35	40	45	
Gly Val Cys Leu Leu Tyr Asp Leu Leu His Ser Pro Trp Leu Gln Ala			
50	55	60	
Leu Leu Lys Ile Tyr Asp Cys Leu Gln Glu Phe Lys Glu Lys Leu			
65	70	75	80

Val Pro Ala Thr Pro His Ala Gln Val Leu Ser Tyr Glu Val Val Glu
 85 90 95
 Leu Leu Arg Glu Thr Pro Thr Ser Pro Glu Ile Gln Glu Leu Arg Gln
 100 105 110
 Met Leu Gln Ala Pro His Phe Lys Gly Ala Thr Ile Lys Arg His Glu
 115 120 125
 Met Thr Gly Asp Ile Leu Val Ala Arg Ile Ile His Gly Gly Leu Ala
 130 135 140
 Glu Arg Ser Gly Leu Leu Tyr Ala Gly Asp Lys Leu Val Glu Val Asn
 145 150 155 160
 Gly Val Ser Val Glu Gly Leu Asp Pro Glu Gln Val Ile His Ile Leu
 165 170 175
 Ala Met Ser Arg Gly Thr Ile Met Phe Lys Val Val Pro Val Ser Asp
 180 185 190
 Pro Pro Val Asn Ser Gln Gln Met Val Tyr Val Arg Ala Met Thr Glu
 195 200 205
 Tyr Trp Pro Gln Glu Asp Pro Asp Ile Pro Cys Met Asp Ala Gly Leu
 210 215 220
 Pro Phe Gln Lys Gly Asp Ile Leu Gln Ile Val Asp Gln Asn Asp Ala
 225 230 235 240
 Leu Trp Trp Gln Ala Arg Lys Ile Ser Asp Pro Ala Thr Cys Ala Gly
 245 250 255
 Leu Val Pro Ser Asn His Leu Leu Lys Arg Trp Ser Phe Ala Leu Val
 260 265 270
 Ala Gln Ala Gly Val Gln Trp His Tyr Leu Asp Ser Leu Gln Pro Leu
 275 280 285
 Pro Pro Gly Phe Lys Arg Phe Ser Cys Leu Ser Leu Pro Arg Ser Trp
 290 295 300
 Asp Tyr Ile Glu Asp Asp Met Lys Ile Asp Glu Lys Cys Val Glu Ala

305	310	315	320
Asp Glu Glu Thr Phe Glu Ser Asp Lys Glu Glu Phe Val Gly Tyr Gly			
325	330	335	
Gln Lys Phe Phe Ile Ala Gly Phe Arg Arg Ser Met Arg Leu Cys Arg			
340	345	350	
Arg Lys Ser His Leu Ser Pro Leu His Ala Ser Val Cys Cys Thr Gly			
355	360	365	
Ser Cys Tyr Ser Ala Val Gly Ala Pro Tyr Glu Glu Val Val Arg Tyr			
370	375	380	
Gln Arg Arg Pro Ser Asp Lys Tyr Arg Leu Ile Val Leu Met Gly Pro			
385	390	395	400
Ser Gly Val Gly Val Asn Glu Leu Arg Arg Gln Leu Ile Glu Phe Asn			
405	410	415	
Pro Ser His Phe Gln Ser Ala Val Pro His Thr Thr Arg Thr Lys Lys			
420	425	430	
Ser Tyr Glu Met Asn Gly Arg Glu Tyr His Tyr Val Ser Lys Glu Thr			
435	440	445	
Phe Glu Asn Leu Ile Tyr Ser His Arg Met Leu Glu Tyr Gly Glu Tyr			
450	455	460	
Lys Gly His Leu Tyr Gly Thr Ser Val Asp Ala Val Gln Thr Val Leu			
465	470	475	480
Val Glu Gly Lys Ile Cys Val Met Asp Leu Glu Pro Gln Asp Ile Gln			
485	490	495	
Gly Val Arg Thr His Glu Leu Lys Pro Tyr Val Ile Phe Ile Lys Pro			
500	505	510	
Ser Asn Met Arg Cys Met Lys Gln Ser Arg Lys Asn Ala Lys Val Ile			
515	520	525	
Thr Asp Tyr Tyr Val Asp Met Lys Phe Lys Asp Glu Asp Leu Gln Glu			
530	535	540	

Met Glu Asn Leu Ala Gln Arg Met Glu Thr Gln Phe Gly Gln Phe Phe
 545 550 555 560
 Asp His Val Ile Val Asn Asp Ser Leu His Asp Ala Cys Ala Gln Leu
 565 570 575
 Leu Ser Ala Ile Gln Lys Ala Gln Glu Glu Pro Gln Trp Val Pro Ala
 580 585 590
 Thr Trp Ile Ser Ser Asp Thr Glu Ser Gln
 595 600

<210> 442

<211> 498

<212> PRT

<213> Homo sapiens

<400> 442

Met Glu Ser Pro Arg Gly Trp Thr Leu Gln Val Ala Pro Glu Glu Gly
 1 5 10 15

Gln Val Leu Cys Asn Val Lys Thr Ala Thr Arg Gly Leu Ser Glu Gly
 20 25 30

Ala Val Ser Gly Gly Trp Gly Ala Trp Glu Asn Ser Thr Glu Val Pro
 35 40 45

Arg Glu Ala Gly Asp Gly Gln Arg Gln Gln Ala Thr Leu Gly Ala Ala
 50 55 60

Asp Glu Gln Gly Gly Pro Gly Arg Glu Leu Gly Pro Ala Asp Gly Gly
 65 70 75 80

Arg Asp Gly Ala Gly Pro Arg Ser Glu Pro Ala Asp Arg Ala Leu Arg
 85 90 95

Pro Ser Pro Leu Pro Glu Glu Pro Gly Cys Arg Cys Gly Glu Cys Gly

100	105	110
Lys Ala Phe Ser Gln Gly Ser Tyr Leu Leu Gln His Arg Arg Val His		
115	120	125
Thr Gly Glu Lys Pro Tyr Thr Cys Pro Glu Cys Gly Lys Ala Phe Ala		
130	135	140
Trp Ser Ser Asn Leu Ser Gln His Ile His Ser Gly Glu Lys		
145	150	155
Pro Tyr Ala Cys Arg Glu Cys Gly Lys Ala Phe Arg Ala Gln Ser Gln		
165	170	175
Leu Ile His His Gln Glu Thr His Ser Gly Leu Lys Pro Phe Arg Cys		
180	185	190
Pro Asp Cys Gly Lys Ser Phe Gly Arg Ser Thr Thr Leu Val Gln His		
195	200	205
Arg Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Pro Glu Cys Gly		
210	215	220
Lys Ala Phe Ser Trp Asn Ser Asn Phe Leu Glu His Arg Arg Val His		
225	230	235
Thr Gly Ala Arg Pro His Ala Cys Arg Asp Cys Gly Lys Ala Phe Ser		
245	250	255
Gln Ser Ser Asn Leu Ala Glu His Leu Lys Ile His Ala Gly Ala Arg		
260	265	270
Pro His Ala Cys Pro Asp Cys Gly Lys Ala Phe Val Arg Val Ala Gly		
275	280	285
Leu Arg Gln His Arg Arg Thr His Ser Ser Glu Lys Pro Phe Pro Cys		
290	295	300
Ala Glu Cys Gly Lys Ala Phe Arg Glu Ser Ser Gln Leu Leu Gln His		
305	310	315
Gln Arg Thr His Thr Gly Glu Arg Pro Phe Glu Cys Ala Glu Cys Gly		
325	330	335

Gln Ala Phe Val Met Gly Ser Tyr Leu Ala Glu His Arg Arg Val His
 340 345 350
 Thr Gly Glu Lys Pro His Ala Cys Ala Gln Cys Gly Lys Ala Phe Ser
 355 360 365
 Gln Arg Ser Asn Leu Leu Ser His Arg Arg Thr His Ser Gly Ala Lys
 370 375 380
 Pro Phe Ala Cys Ala Asp Cys Gly Lys Ala Phe Arg Gly Ser Ser Gly
 385 390 395 400
 Leu Ala His His Arg Leu Ser His Thr Gly Glu Arg Pro Phe Ala Cys
 405 410 415
 Ala Glu Cys Gly Lys Ala Phe Arg Gly Ser Ser Glu Leu Arg Gln His
 420 425 430
 Gln Arg Leu His Ser Gly Glu Arg Pro Phe Val Cys Ala His Cys Ser
 435 440 445
 Lys Ala Phe Val Arg Lys Ser Glu Leu Leu Ser His Arg Arg Thr His
 450 455 460
 Thr Gly Glu Arg Pro Tyr Ala Cys Gly Glu Cys Gly Lys Pro Phe Ser
 465 470 475 480
 His Arg Cys Asn Leu Asn Glu His Gln Lys Arg His Gly Gly Arg Ala
 485 490 495
 Ala Pro

<210> 443

<211> 486

<212> PRT

<213> Homo sapiens

<400> 443

Met Arg Gly Arg Gly Ser Gln Gln Gln Pro Thr Arg Arg Gln Gly
 1 5 10 15
 Gln Lys Leu Pro Ser Pro Ser Pro Ala Gly Lys Tyr Glu Ser Ala Gln
 20 25 30
 Pro Gly Gly Thr Gln Pro Glu Pro Gly Leu Gly Ala Arg Met Ala Ile
 35 40 45
 His Lys Ala Leu Val Met Cys Leu Gly Leu Pro Leu Phe Leu Phe Pro
 50 55 60
 Gly Ala Trp Ala Gln Gly His Val Pro Pro Gly Cys Ser Gln Gly Leu
 65 70 75 80
 Asn Pro Leu Tyr Tyr Asn Leu Cys Asp Arg Ser Gly Ala Trp Gly Ile
 85 90 95
 Val Leu Glu Ala Val Ala Gly Ala Gly Ile Val Thr Thr Phe Val Leu
 100 105 110
 Thr Ile Ile Leu Val Ala Ser Leu Pro Phe Val Gln Asp Thr Lys Lys
 115 120 125
 Arg Ser Leu Leu Gly Thr Gln Val Phe Phe Leu Leu Gly Thr Leu Gly
 130 135 140
 Leu Phe Cys Leu Val Phe Ala Cys Val Val Lys Pro Asp Phe Ser Thr
 145 150 155 160
 Cys Ala Ser Arg Arg Phe Leu Phe Gly Val Leu Phe Ala Ile Cys Phe
 165 170 175
 Ser Cys Leu Ala Ala His Val Phe Ala Leu Asn Phe Leu Ala Arg Lys
 180 185 190
 Asn His Gly Pro Arg Gly Trp Val Ile Phe Thr Val Ala Leu Leu Leu
 195 200 205
 Thr Leu Val Glu Val Ile Ile Asn Thr Glu Trp Leu Ile Ile Thr Leu
 210 215 220

Val Arg Gly Ser Gly Glu Gly Gly Pro Gln Gly Asn Ser Ser Ala Gly
 225 230 235 240
 Trp Ala Val Ala Ser Pro Cys Ala Ile Ala Asn Met Asp Phe Val Met
 245 250 255
 Ala Leu Ile Tyr Val Met Leu Leu Leu Gly Ala Phe Leu Gly Ala
 260 265 270
 Trp Pro Ala Leu Cys Gly Arg Tyr Lys Arg Trp Arg Lys His Gly Val
 275 280 285
 Phe Val Leu Leu Thr Thr Ala Thr Ser Val Ala Ile Trp Val Val Trp
 290 295 300
 Ile Val Met Tyr Thr Tyr Gly Asn Lys Gln His Asn Ser Pro Thr Trp
 305 310 315 320
 Asp Asp Pro Thr Leu Ala Ile Ala Leu Ala Asn Ala Trp Ala Phe
 325 330 335
 Val Leu Phe Tyr Val Ile Pro Glu Val Ser Gln Val Thr Lys Ser Ser
 340 345 350
 Pro Glu Gln Ser Tyr Gln Gly Asp Met Tyr Pro Thr Arg Gly Val Gly
 355 360 365
 Tyr Glu Thr Ile Leu Lys Glu Gln Lys Gly Gln Ser Met Phe Val Glu
 370 375 380
 Asn Lys Ala Phe Ser Met Asp Glu Pro Val Ala Ala Lys Arg Pro Val
 385 390 395 400
 Ser Pro Tyr Ser Gly Tyr Asn Gly Gln Leu Leu Thr Ser Val Tyr Gln
 405 410 415
 Pro Thr Glu Met Ala Leu Met His Lys Val Pro Ser Glu Gly Ala Tyr
 420 425 430
 Asp Ile Ile Leu Pro Arg Ala Thr Ala Asn Ser Gln Val Met Gly Ser
 435 440 445
 Ala Asn Ser Thr Leu Arg Ala Glu Asp Met Tyr Ser Ala Gln Ser His

450	455	460
Gln Ala Ala Thr Pro Pro Lys Asp Gly Lys Asn Ser Gln Val Phe Arg		
465	470	475
Asn Pro Tyr Val Trp Asp		
485		

<210> 444

<211> 301

<212> PRT

<213> Homo sapiens

<400> 444

Met	Tyr	Thr	Arg	Arg	Tyr	Ser	Ser	Ile	Ser	Ser	Thr	Ile	Met	Asp	Val
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1	5	10	15
---	---	----	----

Asp	Ser	Thr	Ile	Ser	Ser	Gly	Arg	Ser	Thr	Pro	Ala	Met	Met	Asn	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

20	25	30
----	----	----

Gln	Gly	Ser	Thr	Thr	Ser	Ser	Lys	Asn	Ile	Ala	Tyr	Asn	Cys	Cys
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

35	40	45
----	----	----

Trp	Asp	Gln	Cys	Gln	Ala	Cys	Phe	Asn	Ser	Ser	Pro	Asp	Leu	Ala	Asp
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

50	55	60
----	----	----

His	Ile	Arg	Ser	Ile	His	Val	Asp	Gly	Gln	Arg	Gly	Gly	Val	Phe	Val
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

65	70	75	80
----	----	----	----

Cys	Leu	Trp	Lys	Gly	Cys	Lys	Val	Tyr	Asn	Thr	Pro	Ser	Thr	Ser	Gln
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

85	90	95
----	----	----

Ser	Trp	Leu	Gln	Arg	His	Met	Leu	Thr	His	Ser	Gly	Asp	Lys	Pro	Phe
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

100	105	110
-----	-----	-----

Lys	Cys	Val	Val	Gly	Gly	Cys	Asn	Ala	Ser	Phe	Ala	Ser	Gln	Gly	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

115	120	125
-----	-----	-----

Leu Ala Arg His Val Pro Thr His Phe Ser Gln Gln Asn Ser Ser Lys
 130 135 140
 Val Ser Ser Gln Pro Lys Ala Lys Glu Glu Ser Pro Ser Lys Ala Gly
 145 150 155 160
 Met Asn Lys Arg Arg Lys Leu Lys Asn Lys Arg Arg Arg Ser Leu Pro
 165 170 175
 Arg Pro His Asp Phe Phe Asp Ala Gln Thr Leu Asp Ala Ile Arg His
 180 185 190
 Arg Ala Ile Cys Phe Asn Leu Ser Ala His Ile Glu Ser Leu Gly Lys
 195 200 205
 Gly His Ser Val Val Phe His Ser Thr Val Ile Ala Lys Arg Lys Glu
 210 215 220
 Asp Ser Gly Lys Ile Lys Leu Leu Leu His Trp Met Pro Glu Asp Ile
 225 230 235 240
 Leu Pro Asp Val Trp Val Asn Glu Ser Glu Arg His Gln Leu Lys Thr
 245 250 255
 Lys Val Val His Leu Ser Lys Leu Pro Lys Asp Thr Ala Leu Leu Leu
 260 265 270
 Asp Pro Asn Ile Tyr Arg Thr Met Pro Gln Lys Arg Leu Lys Arg Thr
 275 280 285
 Leu Ile Arg Lys Val Phe Asn Leu Tyr Leu Ser Lys Gln
 290 295 300

<210> 445

<211> 626

<212> PRT

<213> Homo sapiens

<400> 445

Met Ala Val Ser Gly Phe Thr Leu Gly Thr Cys Ile Leu Leu Leu His
 1 5 10 15
 Ile Ser Tyr Val Ala Asn Tyr Pro Asn Gly Lys Val Thr Gln Ser Cys
 20 25 30
 His Gly Met Ile Pro Glu His Gly His Ser Pro Gln Ser Val Pro Val
 35 40 45
 His Asp Ile Tyr Val Ser Gln Met Thr Phe Arg Pro Gly Asp Gln Ile
 50 55 60
 Glu Val Thr Leu Ser Gly His Pro Phe Lys Gly Phe Leu Leu Glu Ala
 65 70 75 80
 Arg Asn Ala Glu Asp Leu Asn Gly Pro Pro Ile Gly Ser Phe Thr Leu
 85 90 95
 Ile Asp Ser Glu Val Ser Gln Leu Leu Thr Cys Glu Asp Ile Gln Gly
 100 105 110
 Ser Ala Val Ser His Arg Ser Ala Ser Lys Lys Thr Glu Ile Lys Val
 115 120 125
 Tyr Trp Asn Ala Pro Ser Ser Ala Pro Asn His Thr Gln Phe Leu Val
 130 135 140
 Thr Val Val Glu Lys Tyr Lys Ile Tyr Trp Val Lys Ile Pro Gly Pro
 145 150 155 160
 Ile Ile Ser Gln Pro Asn Ala Phe Pro Phe Thr Thr Pro Lys Ala Thr
 165 170 175
 Val Val Leu Leu Pro Thr Leu Pro Pro Val Ser His Leu Thr Lys Pro
 180 185 190
 Phe Ser Ala Ser Asp Cys Gly Asn Lys Lys Phe Cys Ile Arg Ser Pro
 195 200 205
 Leu Asn Cys Asp Pro Glu Lys Glu Ala Ser Cys Val Phe Leu Ser Phe
 210 215 220

Thr Arg Asp Asp Gln Ser Val Met Val Glu Met Ser Gly Pro Ser Lys
 225 230 235 240
 Gly Tyr Leu Ser Phe Ala Leu Ser His Asp Gln Trp Met Gly Asp Asp
 245 250 255
 Asp Ala Tyr Leu Cys Ile His Glu Asp Gln Thr Val Tyr Ile Gln Pro
 260 265 270
 Ser His Leu Thr Gly Arg Ser His Pro Val Met Asp Ser Arg Asp Thr
 275 280 285
 Leu Glu Asp Met Ala Trp Arg Leu Ala Asp Gly Val Met Gln Cys Ser
 290 295 300
 Phe Arg Arg Asn Ile Thr Leu Pro Gly Val Lys Asn Arg Phe Asp Leu
 305 310 315 320
 Asn Thr Ser Tyr Tyr Ile Phe Leu Ala Asp Gly Ala Ala Asn Asp Gly
 325 330 335
 Arg Ile Tyr Lys His Ser Gln Gln Pro Leu Ile Thr Tyr Glu Lys Tyr
 340 345 350
 Asp Val Thr Asp Ser Pro Lys Asn Ile Gly Gly Ser His Ser Val Leu
 355 360 365
 Leu Leu Lys Val His Gly Ala Leu Met Phe Val Ala Trp Met Thr Thr
 370 375 380
 Val Ser Ile Gly Val Leu Val Ala Arg Phe Phe Lys Pro Val Trp Ser
 385 390 395 400
 Lys Ala Phe Leu Leu Gly Glu Ala Ala Trp Phe Gln Val His Arg Met
 405 410 415
 Leu Met Phe Thr Thr Val Leu Thr Cys Ile Ala Phe Val Met Pro
 420 425 430
 Phe Ile Tyr Arg Gly Gly Trp Ser Arg His Ala Gly Tyr His Pro Tyr
 435 440 445
 Leu Gly Cys Ile Val Met Thr Leu Ala Val Leu Gln Pro Leu Leu Ala

450	455	460
Val Phe Arg Pro Pro Leu His Asp Pro Arg Arg Gln Met Phe Asn Trp		
465	470	475
Thr His Trp Ser Met Gly Thr Ala Ala Arg Ile Ile Ala Val Ala Ala		
485	490	495
Met Phe Leu Gly Met Asp Leu Pro Gly Leu Asn Leu Pro Asp Ser Trp		
500	505	510
Lys Thr Tyr Ala Met Thr Gly Phe Val Ala Trp His Val Gly Thr Glu		
515	520	525
Val Val Leu Glu Leu Lys Tyr Trp Met Met Thr Glu Phe Arg Ser Phe		
530	535	540
Ser His Leu Leu Gln Trp Lys Gln Arg Val Met Leu Leu Lys Arg Gln		
545	550	555
Cys Trp Gln Phe Met Ser Val Gly Met Leu Leu Phe Ser Ser Tyr Phe		
565	570	575
Tyr Leu Gln Ser Thr Ile Tyr Glu Gln Ala Lys Thr Leu Ala Phe Ala		
580	585	590
Gly Gln Val Ile Ile Ile Lys Pro Lys Lys Leu Glu Ala Cys Pro		
595	600	605
Asp Cys Leu Glu His Ile Cys Glu Phe Ser Leu Gly Arg Leu Gly Ser		
610	615	620
Cys Leu		
625		

<210> 446

<211> 827

<212> PRT

<213> Homo sapiens

<400> 446

Met Ile Arg Arg Leu Lys Thr Glu Val Leu Thr Gln Leu Pro Pro Lys
 1 5 10 15

Val Arg Gln Arg Ile Pro Phe Asp Leu Pro Ser Ala Ala Ala Lys Glu
 20 25 30

Leu Asn Thr Ser Phe Glu Glu Trp Glu Lys Ile Met Arg Thr Pro Asn
 35 40 45

Ser Gly Ala Met Glu Thr Val Met Gly Leu Ile Thr Arg Met Phe Lys
 50 55 60

Gln Thr Ala Ile Ala Lys Ala Gly Ala Val Lys Asp Tyr Ile Lys Met
 65 70 75 80

Met Leu Gln Asn Asp Ser Leu Lys Phe Leu Val Phe Ala His His Leu
 85 90 95

Ser Met Leu Gln Ala Cys Thr Glu Ala Val Ile Glu Asn Lys Thr Arg
 100 105 110

Tyr Ile Arg Ile Asp Gly Ser Val Ser Ser Ser Glu Arg Ile His Leu
 115 120 125

Val Asn Gln Phe Gln Lys Asp Pro Asp Thr Arg Val Ala Ile Leu Ser
 130 135 140

Ile Gln Ala Ala Gly Gln Gly Leu Thr Phe Thr Ala Ala Ser His Val
 145 150 155 160

Val Phe Ala Glu Leu Tyr Trp Asp Pro Gly His Ile Lys Gln Ala Glu
 165 170 175

Asp Arg Ala His Arg Ile Gly Gln Cys Ser Ser Val Asn Ile His Tyr
 180 185 190

Leu Ile Ala Asn Gly Thr Leu Asp Thr Leu Met Trp Gly Met Leu Asn
 195 200 205

Arg Lys Ala Gln Val Thr Gly Ser Thr Leu Asn Gly Arg Lys Glu Lys

210	215	220
Ile Gln Ala Glu Glu Gly Asp Lys Glu Lys Trp Asp Phe Leu Gln Phe		
225	230	235
Ala Glu Ala Trp Thr Pro Asn Asp Ser Ser Glu Glu Leu Arg Lys Glu		
245	250	255
Ala Leu Phe Thr His Phe Glu Lys Glu Lys Gln His Asp Ile Arg Ser		
260	265	270
Phe Phe Val Pro Gln Pro Lys Lys Arg Gln Leu Met Thr Ser Cys Asp		
275	280	285
Glu Ser Lys Arg Phe Arg Glu Glu Asn Thr Val Val Ser Ser Asp Pro		
290	295	300
Thr Lys Thr Ala Ala Arg Asp Ile Ile Asp Tyr Glu Ser Asp Val Glu		
305	310	315
Pro Glu Thr Lys Arg Leu Lys Leu Ala Ala Ser Glu Asp His Cys Ser		
325	330	335
Pro Ser Glu Glu Thr Pro Ser Gln Ser Lys Gln Ile Arg Thr Pro Leu		
340	345	350
Val Glu Ser Val Gln Glu Ala Lys Ala Gln Leu Thr Thr Pro Ala Phe		
355	360	365
Pro Val Glu Gly Trp Gln Cys Ser Leu Cys Thr Tyr Ile Asn Asn Ser		
370	375	380
Glu Leu Pro Tyr Cys Glu Met Cys Glu Thr Pro Gln Gly Ser Ala Val		
385	390	395
Met Gln Ile Asp Ser Leu Asn His Ile Gln Asp Lys Asn Glu Lys Asp		
405	410	415
Asp Ser Gln Lys Asp Thr Ser Lys Lys Val Gln Thr Ile Ser Asp Cys		
420	425	430
Glu Lys Gln Ala Leu Ala Gln Ser Glu Pro Gly Gln Leu Ala Asp Ser		
435	440	445

Lys Glu Glu Thr Pro Lys Ile Glu Lys Glu Asp Gly Leu Thr Ser Gln
 450 455 460
 Pro Gly Asn Glu Gln Trp Lys Ser Ser Asp Thr Leu Pro Val Tyr Asp
 465 470 475 480
 Thr Leu Met Phe Cys Ala Ser Arg Asn Thr Asp Arg Ile His Ile Tyr
 485 490 495
 Thr Lys Asp Gly Lys Gln Met Ser Cys Asn Phe Ile Pro Leu Asp Ile
 500 505 510
 Lys Leu Asp Leu Trp Glu Asp Leu Pro Ala Ser Phe Gln Leu Lys Gln
 515 520 525
 Tyr Arg Ser Leu Ile Leu Arg Phe Val Arg Glu Trp Ser Ser Leu Thr
 530 535 540
 Ala Met Lys Gln Arg Ile Ile Arg Lys Ser Gly Gln Leu Phe Cys Ser
 545 550 555 560
 Pro Ile Leu Ala Leu Glu Glu Ile Thr Lys Gln Gln Thr Lys Gln Asn
 565 570 575
 Cys Thr Lys Arg Tyr Ile Thr Lys Glu Asp Val Ala Val Ala Ser Met
 580 585 590
 Asp Lys Ala Lys Asn Val Gly Gly His Val Arg Leu Ile Thr Lys Glu
 595 600 605
 Ser Arg Pro Arg Asp Pro Phe Thr Lys Lys Leu Leu Glu Asp Gly Ala
 610 615 620
 Cys Val Pro Phe Leu Asn Pro Tyr Thr Val Gln Ala Asp Leu Thr Val
 625 630 635 640
 Lys Pro Ser Thr Ser Lys Gly Tyr Leu Gln Ala Val Asp Asn Glu Gly
 645 650 655
 Asn Pro Leu Cys Leu Arg Cys Gln Gln Pro Thr Cys Gln Thr Lys Gln
 660 665 670
 Ala Cys Lys Ala Asn Ser Trp Asp Ser Arg Phe Cys Ser Leu Lys Cys

675	680	685
Gln Glu Glu Phe Trp Ile Arg Ser Asn Asn Ser Tyr Leu Arg Ala Lys		
690	695	700
Val Phe Glu Thr Glu His Gly Val Cys Gln Leu Cys Asn Val Asn Ala		
705	710	715
Gln Glu Leu Phe Leu Arg Leu Arg Asp Ala Pro Lys Ser Gln Arg Lys		
725	730	735
Asn Leu Leu Tyr Ala Thr Trp Thr Ser Lys Leu Pro Leu Glu Gln Leu		
740	745	750
Asn Glu Met Ile Arg Asn Pro Gly Glu Gly His Phe Trp Gln Val Asp		
755	760	765
His Ile Lys Pro Val Tyr Gly Gly Gly Gln Cys Ser Leu Asp Asn		
770	775	780
Leu Gln Thr Leu Cys Thr Val Cys His Lys Glu Arg Thr Ala Arg Gln		
785	790	795
Ala Lys Glu Arg Ser Gln Val Arg Arg Gln Ser Leu Ala Ser Lys His		
805	810	815
Gly Ser Asp Ile Thr Arg Phe Leu Val Lys Lys		
820	825	

<210> 447

<211> 994

<212> PRT

<213> Homo sapiens

<400> 447

Met Ser Gln Trp Thr Pro Glu Tyr Lys Glu Leu Tyr Thr Leu Lys Val

1

5

10

15

Asp Met Lys Ser Glu Ile Pro Ser Asp Ala Pro Lys Thr Gln Glu Ser
 20 25 30
 Leu Lys Gly Ile Leu Leu His Pro Glu Pro Ile Gly Ala Ala Lys Ser
 35 40 45
 Phe Pro Ala Gly Val Glu Met Ile Asn Ser Lys Val Gly Asn Glu Phe
 50 55 60
 Ser His Leu Cys Asp Asp Ser Gln Lys Gln Glu Lys Glu Met Asn Gly
 65 70 75 80
 Asn Gln Gln Glu Gln Glu Lys Ser Leu Val Val Arg Lys Lys Arg Lys
 85 90 95
 Ser Gln Gln Ala Gly Pro Ser Tyr Val Gln Asn Cys Val Lys Glu Asn
 100 105 110
 Gln Gly Ile Leu Gly Leu Arg Gln His Leu Gly Thr Pro Ser Asp Glu
 115 120 125
 Asp Asn Asp Ser Ser Phe Ser Asp Cys Leu Ser Ser Pro Ser Ser Ser
 130 135 140
 Leu His Phe Gly Asp Ser Asp Thr Val Thr Ser Asp Glu Asp Lys Glu
 145 150 155 160
 Val Ser Val Arg His Ser Gln Thr Ile Leu Asn Ala Lys Ser Arg Ser
 165 170 175
 His Ser Ala Arg Ser His Lys Trp Pro Arg Thr Glu Thr Glu Ser Val
 180 185 190
 Ser Gly Leu Leu Met Lys Arg Pro Cys Leu His Gly Ser Ser Leu Arg
 195 200 205
 Arg Leu Pro Cys Arg Lys Arg Phe Val Lys Asn Asn Ser Ser Gln Arg
 210 215 220
 Thr Gln Lys Gln Lys Glu Arg Ile Leu Met Gln Arg Lys Lys Arg Glu
 225 230 235 240
 Val Leu Ala Arg Arg Lys Tyr Ala Leu Leu Pro Ser Ser Ser Ser

245	250	255
Ser Glu Asn Asp Leu Ser Ser Glu Ser Ser Ser Ser Thr Glu		
260	265	270
Gly Glu Glu Asp Leu Phe Val Ser Ala Ser Glu Asn His Gln Asn Asn		
275	280	285
Pro Ala Val Pro Ser Gly Ser Ile Asp Glu Asp Val Val Val Ile Glu		
290	295	300
Ala Ser Ser Thr Pro Gln Val Thr Ala Asn Glu Glu Ile Asn Val Thr		
305	310	315
Ser Thr Asp Ser Glu Val Glu Ile Val Thr Val Gly Glu Ser Tyr Arg		
325	330	335
Ser Arg Ser Thr Leu Gly His Ser Arg Ser His Trp Ser Gln Gly Ser		
340	345	350
Ser Ser His Ala Ser Arg Pro Gln Glu Pro Arg Asn Arg Ser Arg Ile		
355	360	365
Ser Thr Val Ile Gln Pro Leu Arg Gln Asn Ala Ala Glu Val Val Asp		
370	375	380
Leu Thr Val Asp Glu Asp Glu Pro Thr Val Val Pro Thr Thr Ser Ala		
385	390	395
Arg Met Glu Ser Gln Ala Thr Ser Ala Ser Ile Asn Asn Ser Asn Pro		
405	410	415
Ser Thr Ser Glu Gln Ala Ser Asp Thr Ala Ser Ala Val Thr Ser Ser		
420	425	430
Gln Pro Ser Thr Val Ser Glu Thr Ser Ala Thr Leu Thr Ser Asn Ser		
435	440	445
Thr Thr Gly Thr Ser Ile Gly Asp Asp Ser Arg Arg Thr Thr Ser Ser		
450	455	460
Ala Val Thr Glu Thr Gly Pro Pro Ala Met Pro Arg Leu Pro Ser Cys		
465	470	475
		480

Cys Pro Gln His Ser Pro Cys Gly Gly Ser Ser Gln Asn His His Ala
 485 490 495
 Leu Gly His Pro His Thr Ser Cys Phe Gln Gln His Gly His His Phe
 500 505 510
 Gln His His His His His His His Thr Pro His Pro Ala Val Pro Val
 515 520 525
 Ser Pro Ser Phe Ser Asp Pro Ala Cys Pro Val Glu Arg Pro Pro Gln
 530 535 540
 Val Gln Ala Pro Cys Gly Ala Asn Ser Ser Ser Gly Thr Ser Tyr His
 545 550 555 560
 Glu Gln Gln Ala Leu Pro Val Asp Leu Ser Asn Ser Gly Ile Arg Ser
 565 570 575
 His Gly Ser Gly Ser Phe His Gly Ala Ser Ala Phe Asp Pro Cys Cys
 580 585 590
 Pro Val Ser Ser Arg Ala Ala Ile Phe Gly His Gln Ala Ala Ala
 595 600 605
 Ala Ala Pro Ser Gln Pro Leu Ser Ser Ile Asp Gly Tyr Gly Ser Ser
 610 615 620
 Met Val Ala Gln Pro Gln Pro Gln Pro Pro Pro Gln Pro Ser Leu Ser
 625 630 635 640
 Ser Cys Arg His Tyr Met Pro Pro Pro Tyr Ala Ser Leu Thr Arg Pro
 645 650 655
 Leu His His Gln Ala Ser Ala Cys Pro His Ser His Gly Asn Pro Pro
 660 665 670
 Pro Gln Thr Gln Pro Pro Gln Val Asp Tyr Val Ile Pro His Pro
 675 680 685
 Val His Ala Phe His Ser Gln Ile Ser Ser His Ala Thr Ser His Pro
 690 695 700
 Val Ala Pro Pro Pro Pro Thr His Leu Ala Ser Thr Ala Ala Pro Ile

705	710	715	720
Pro Gln His Leu Pro Pro Thr His Gln Pro Ile Ser His His Ile Pro			
725	730	735	
Ala Thr Ala Pro Pro Ala Gln Arg Leu His Pro His Glu Val Met Gln			
740	745	750	
Arg Met Glu Val Gln Arg Arg Met Met Gln His Pro Thr Arg Ala			
755	760	765	
His Glu Arg Pro Pro His Pro His Arg Met His Pro Asn Tyr Gly			
770	775	780	
His Gly His His Ile His Val Pro Gln Thr Met Ser Ser His Pro Arg			
785	790	795	800
Gln Ala Pro Glu Arg Ser Ala Trp Glu Leu Gly Ile Glu Ala Gly Val			
805	810	815	
Thr Ala Ala Thr Tyr Thr Pro Gly Ala Leu His Pro His Leu Ala His			
820	825	830	
Tyr His Ala Pro Pro Arg Leu His His Leu Gln Leu Gly Ala Leu Pro			
835	840	845	
Leu Met Val Pro Asp Met Ala Gly Tyr Pro His Ile Arg Tyr Ile Ser			
850	855	860	
Ser Gly Leu Asp Gly Thr Ser Phe Arg Gly Pro Phe Arg Gly Asn Phe			
865	870	875	880
Glu Glu Leu Ile His Leu Glu Glu Arg Leu Gly Asn Val Asn Arg Gly			
885	890	895	
Ala Ser Gln Gly Thr Ile Glu Arg Cys Thr Tyr Pro His Lys Tyr Lys			
900	905	910	
Lys Val Thr Thr Asp Trp Phe Ser Gln Arg Lys Leu His Cys Lys Gln			
915	920	925	
Asp Gly Glu Glu Gly Thr Glu Glu Asp Thr Glu Glu Lys Cys Thr Ile			
930	935	940	

Cys Leu Ser Ile Leu Glu Glu Gly Glu Asp Val Arg Arg Leu Pro Cys
 945 950 955 960
 Met His Leu Phe His Gln Val Cys Val Asp Gln Trp Leu Val Thr Asn
 965 970 975
 Lys Lys Cys Pro Ile Cys Arg Val Asp Ile Glu Ala Gln Leu Pro Ser
 980 985 990
 Glu Ser

<210> 448

<211> 105

<212> PRT

<213> Homo sapiens

<400> 448

Met Glu Gln Ser Trp Thr Glu Asn Asp Phe Asp Glu Leu Arg Glu Glu
 1 5 10 15
 Gly Phe Arg Arg Ser Asn Tyr Glu Leu Gln Glu Glu Ile Gln Ile Lys
 20 25 30
 Gly Lys Glu Val Lys Asn Phe Glu Lys Asn Leu Asp Glu Cys Ile Thr
 35 40 45
 Arg Ile Thr Asn Thr Glu Lys Cys Leu Glu Asp Leu Met Glu Leu Lys
 50 55 60
 Ala Lys Ala Arg Glu Leu Cys Glu Glu Cys Arg Ser Leu Arg Ser Arg
 65 70 75 80
 Cys Asp Gln Leu Glu Glu Arg Val Ser Val Met Glu Asp Glu Met Asn
 85 90 95
 Glu Met Lys Gln Gln Gly Lys Phe Arg

100 105

<210> 449

<211> 136

<212> PRT

<213> Homo sapiens

<400> 449

Met	Trp	Leu	Glu	Val	Arg	Ala	Leu	Leu	Leu	Ser	Cys	Val	Arg	Val	Phe
1															
Gln	His	Gly	Thr	Asp	Gly	Ser	Ser	Gly	His	Ser	Leu	Ser	Gln	Gly	Leu
20															
Ala	Arg	Leu	Arg	His	Asp	Gly	Pro	Ser	Pro	Ala	Leu	Thr	Thr	Thr	Lys
35															
Ser	Gly	Arg	Val	Glu	Phe	Ala	Val	Asn	Ser	Ala	Val	Pro	Met	Glu	Thr
50															
Cys	Val	Val	Ser	Glu	Gln	Gln	Tyr	Leu	Leu	Glu	Leu	Val	Gln	Thr	Pro
65															
Arg	Leu	Pro	Ser	Gly	Thr	Thr	Trp	Ser	Thr	Ser	Pro	Arg	Glu	Ala	Ala
85															
Ala	Leu	Arg	Gly	Cys	Pro	Ala	Gln	Trp	Pro	Leu	Ser	Arg	Val	Ser	Leu
100															
Gln	Glu	Ala	Ser	Glu	Gln	Ser	Leu	Lys	Pro	Gly	Met	Ala	Pro	Ser	Pro
115															
Cys	Cys	His	His	Cys	Val	Leu	Thr								
130															
135															

<210> 450

<211> 250

<212> PRT

<213> Homo sapiens

<400> 450

Met Ala Glu Gly Gly Ala Ser Lys Gly Gly Glu Glu Pro Gly Lys

1

5

10

15

Leu Pro Glu Pro Ala Glu Glu Ser Gln Val Leu Arg Gly Thr Gly

20

25

30

His Cys Lys Trp Phe Asn Val Arg Met Gly Phe Gly Phe Ile Ser Met

35

40

45

Ile Asn Arg Glu Gly Ser Pro Leu Asp Ile Pro Val Asp Val Phe Val

50

55

60

His Gln Ser Lys Leu Phe Met Glu Gly Phe Arg Ser Leu Lys Glu Gly

65

70

75

80

Glu Pro Val Glu Phe Thr Phe Lys Lys Ser Ser Lys Gly Leu Glu Ser

85

90

95

Ile Arg Val Thr Gly Pro Gly Ser Pro Cys Leu Gly Ser Glu Arg

100

105

110

Arg Pro Lys Gly Lys Thr Leu Gln Lys Arg Lys Pro Lys Gly Asp Arg

115

120

125

Cys Tyr Asn Cys Gly Gly Leu Asp His His Ala Lys Glu Cys Ser Leu

130

135

140

Pro Pro Gln Pro Lys Lys Cys His Tyr Cys Gln Ser Ile Met His Met

145

150

155

160

Val Ala Asn Cys Pro His Lys Asn Val Ala Gln Pro Pro Ala Ser Ser

165

170

175

Gln Gly Arg Gln Glu Ala Glu Ser Gln Pro Cys Thr Ser Thr Leu Pro

180	185	190
Arg Glu Val Gly Gly His Gly Cys Thr Ser Pro Pro Phe Pro Gln		
195	200	205
Glu Ala Arg Ala Glu Ile Ser Glu Arg Ser Gly Arg Ser Pro Gln Glu		
210	215	220
Ala Ser Ser Thr Lys Ser Ser Ile Ala Pro Glu Glu Gln Ser Lys Lys		
225	230	235
Gly Pro Ser Val Gln Lys Arg Lys Lys Thr		
245	250	

<210> 451

<211> 748

<212> PRT

<213> Homo sapiens

<400> 451

Met Lys Gln Met His Glu Trp Asn Phe Thr Ala Ser Ser Ile Lys Gly			
1	5	10	15

Ile Ser Leu Ser Lys Phe Asp Glu Arg Cys Cys Phe Leu Tyr Val His			
20	25	30	

Asp Asn Ser Asp Asp Phe Gln Ile Tyr Phe Ser Thr Glu Glu Gln Cys			
35	40	45	

Ser Arg Phe Phe Ser Leu Val Lys Glu Met Ile Thr Asn Thr Ala Gly			
50	55	60	

Ser Thr Val Glu Leu Glu Gly Glu Thr Asp Gly Asp Thr Leu Glu Tyr			
65	70	75	80

Glu Tyr Asp His Asp Ala Asn Gly Glu Arg Val Val Leu Gly Lys Gly			
85	90	95	

Thr Tyr Gly Ile Val Tyr Ala Gly Arg Asp Leu Ser Asn Gln Val Arg
 100 105 110
 Ile Ala Ile Lys Glu Ile Pro Glu Arg Asp Ser Arg Tyr Ser Gln Pro
 115 120 125
 Leu His Glu Glu Ile Ala Leu His Lys Tyr Leu Lys His Arg Asn Ile
 130 135 140
 Val Gln Tyr Leu Gly Ser Val Ser Glu Asn Gly Tyr Ile Lys Ile Phe
 145 150 155 160
 Met Glu Gln Val Pro Gly Gly Ser Leu Ser Ala Leu Leu Arg Ser Lys
 165 170 175
 Trp Gly Pro Met Lys Glu Pro Thr Ile Lys Phe Tyr Thr Lys Gln Ile
 180 185 190
 Leu Glu Gly Leu Lys Tyr Leu His Glu Asn Gln Ile Val His Arg Asp
 195 200 205
 Ile Lys Gly Asp Asn Val Leu Val Asn Thr Tyr Ser Gly Val Val Lys
 210 215 220
 Ile Ser Asp Phe Gly Thr Ser Lys Arg Leu Ala Gly Val Asn Pro Cys
 225 230 235 240
 Thr Glu Thr Phe Thr Gly Thr Leu Gln Tyr Met Ala Pro Glu Ile Ile
 245 250 255
 Asp Gln Gly Pro Arg Gly Tyr Gly Ala Pro Ala Asp Ile Trp Ser Leu
 260 265 270
 Gly Cys Thr Ile Ile Glu Met Ala Thr Ser Lys Pro Pro Phe His Glu
 275 280 285
 Leu Gly Glu Pro Gln Ala Ala Met Phe Lys Val Gly Met Phe Lys Ile
 290 295 300
 His Pro Glu Ile Pro Glu Ala Leu Ser Ala Glu Ala Arg Ala Phe Ile
 305 310 315 320
 Leu Ser Cys Phe Glu Pro Asp Pro His Lys Arg Ala Thr Thr Ala Glu

325	330	335
Leu Leu Arg Glu Gly Phe Leu Arg Gln Val Asn Lys Gly Lys Lys Asn		
340	345	350
Arg Ile Ala Phe Lys Pro Ser Glu Gly Pro Arg Gly Val Val Leu Ala		
355	360	365
Leu Pro Thr Gln Gly Glu Pro Met Ala Thr Ser Ser Ser Glu His Gly		
370	375	380
Ser Val Ser Pro Asp Ser Asp Ala Gln Pro Asp Ala Leu Phe Glu Arg		
385	390	395
Thr Arg Ala Pro Arg His His Leu Gly His Leu Leu Ser Val Pro Asp		
405	410	415
Glu Ser Ser Ala Leu Glu Asp Arg Gly Leu Ala Ser Ser Pro Glu Asp		
420	425	430
Arg Asp Gln Gly Leu Phe Leu Leu Arg Lys Asp Ser Glu Arg Arg Ala		
435	440	445
Ile Leu Tyr Lys Ile Leu Trp Glu Glu Gln Asn Gln Val Ala Ser Asn		
450	455	460
Leu Gln Glu Cys Val Ala Gln Ser Ser Glu Glu Leu His Leu Ser Val		
465	470	475
Gly His Ile Lys Gln Ile Ile Gly Ile Leu Arg Asp Phe Ile Arg Ser		
485	490	495
Pro Glu His Arg Val Met Ala Thr Thr Ile Ser Lys Leu Lys Val Asp		
500	505	510
Leu Asp Phe Asp Ser Ser Ser Ile Ser Gln Ile His Leu Val Leu Phe		
515	520	525
Gly Phe Gln Asp Ala Val Asn Lys Ile Leu Arg Asn His Leu Ile Arg		
530	535	540
Pro His Trp Met Phe Ala Met Asp Asn Ile Ile Arg Arg Ala Val Gln		
545	550	555
560		

Ala Ala Val Thr Ile Leu Ile Pro Glu Leu Arg Ala His Phe Glu Pro
 565 570 575
 Thr Cys Glu Thr Glu Gly Val Asp Lys Asp Met Asp Glu Ala Glu Glu
 580 585 590
 Gly Tyr Pro Pro Ala Thr Gly Pro Gly Gln Glu Ala Gln Pro His Gln
 595 600 605
 Gln His Leu Ser Leu Gln Leu Gly Glu Leu Arg Gln Glu Thr Asn Arg
 610 615 620
 Leu Leu Glu His Leu Val Glu Lys Glu Arg Glu Tyr Gln Asn Leu Leu
 625 630 635 640
 Arg Gln Thr Leu Glu Gln Lys Thr Gln Glu Leu Tyr His Leu Gln Leu
 645 650 655
 Lys Leu Lys Ser Asn Cys Ile Thr Glu Asn Pro Ala Gly Pro Tyr Gly
 660 665 670
 Gln Arg Thr Asp Lys Glu Leu Ile Asp Trp Leu Arg Leu Gln Gly Ala
 675 680 685
 Asp Ala Lys Thr Ile Glu Lys Ile Val Glu Glu Gly Tyr Thr Leu Ser
 690 695 700
 Asp Ile Leu Asn Glu Ile Thr Lys Glu Asp Leu Arg Tyr Leu Arg Leu
 705 710 715 720
 Arg Gly Gly Leu Leu Cys Arg Leu Trp Ser Ala Val Ser Gln Tyr Arg
 725 730 735
 Arg Ala Gln Glu Ala Ser Glu Thr Lys Asp Lys Ala
 740 745

<210> 452

<211> 572

<212> PRT

<213> Homo sapiens

<400> 452

Met Cys His Phe Lys Leu Val Ala Ile Val Gly Tyr Leu Ile Arg Leu

1 5 10 15

Ser Ile Lys Ser Ile Gln Ile Glu Ala Asp Asn Cys Val Thr Asp Ser

20 25 30

Leu Thr Ile Tyr Asp Ser Leu Leu Pro Ile Arg Ser Ser Ile Leu Tyr

35 40 45

Arg Ile Cys Glu Pro Thr Arg Thr Leu Met Ser Phe Val Ser Thr Asn

50 55 60

Asn Leu Met Leu Val Thr Phe Lys Ser Pro His Ile Arg Arg Leu Ser

65 70 75 80

Gly Ile Arg Ala Tyr Phe Glu Val Ile Pro Glu Gln Lys Cys Glu Asn

85 90 95

Thr Val Leu Val Lys Asp Ile Thr Gly Phe Glu Gly Lys Ile Ser Ser

100 105 110

Pro Tyr Tyr Pro Ser Tyr Tyr Pro Pro Lys Cys Lys Cys Thr Trp Lys

115 120 125

Phe Gln Thr Ser Leu Ser Thr Leu Gly Ile Ala Leu Lys Phe Tyr Asn

130 135 140

Tyr Ser Ile Thr Lys Lys Ser Met Lys Gly Cys Glu His Gly Trp Trp

145 150 155 160

Glu Ile Asn Glu His Met Tyr Cys Gly Ser Tyr Met Asp His Gln Thr

165 170 175

Ile Phe Arg Val Pro Ser Pro Leu Val His Ile Gln Leu Gln Cys Ser

180 185 190

Ser Arg Leu Ser Asp Lys Pro Leu Leu Ala Glu Tyr Gly Ser Tyr Asn

195 200 205

Ile Ser Gln Pro Cys Pro Val Gly Ser Phe Arg Cys Ser Ser Gly Leu
 210 215 220

Cys Val Pro Gln Ala Gln Arg Cys Asp Gly Val Asn Asp Cys Phe Asp
 225 230 235 240

Glu Ser Asp Glu Leu Phe Cys Val Ser Pro Gln Pro Ala Cys Asn Thr
 245 250 255

Ser Ser Phe Arg Gln His Gly Pro Leu Ile Cys Asp Gly Phe Arg Asp
 260 265 270

Cys Glu Asn Gly Arg Asp Glu Gln Asn Cys Thr Gln Ser Ile Pro Cys
 275 280 285

Asn Asn Arg Thr Phe Lys Cys Gly Asn Asp Ile Cys Phe Arg Lys Gln
 290 295 300

Asn Ala Lys Cys Asp Gly Thr Val Asp Cys Pro Asp Gly Ser Asp Glu
 305 310 315 320

Glu Gly Cys Thr Cys Ser Arg Ser Ser Ala Leu His Arg Ile Ile
 325 330 335

Gly Gly Thr Asp Thr Leu Glu Gly Gly Trp Pro Trp Gln Val Ser Leu
 340 345 350

His Phe Val Gly Ser Ala Tyr Cys Gly Ala Ser Val Ile Ser Arg Glu
 355 360 365

Trp Leu Leu Ser Ala Ala His Cys Phe His Gly Asn Arg Leu Ser Asp
 370 375 380

Pro Thr Pro Trp Thr Ala His Leu Gly Met Tyr Val Gln Gly Asn Ala
 385 390 395 400

Lys Phe Val Ser Pro Val Arg Arg Ile Val Val His Glu Tyr Tyr Asn
 405 410 415

Ser Gln Thr Phe Asp Tyr Asp Ile Ala Leu Leu Gln Leu Ser Ile Ala
 420 425 430

Trp Pro Glu Thr Leu Lys Gln Leu Ile Gln Pro Ile Cys Ile Pro Pro

435	440	445
Thr Gly Gln Arg Val Arg Ser Gly Glu Lys Cys Trp Val Thr Gly Trp		
450	455	460
Gly Arg Arg His Glu Ala Asp Asn Lys Gly Ser Leu Val Leu Gln Gln		
465	470	475
Ala Glu Val Glu Leu Ile Asp Gln Thr Leu Cys Val Ser Thr Tyr Gly		
485	490	495
Ile Ile Thr Ser Arg Met Leu Cys Ala Gly Ile Met Ser Gly Lys Arg		
500	505	510
Asp Ala Cys Lys Gly Asp Ser Gly Gly Pro Leu Ser Cys Arg Arg Lys		
515	520	525
Ser Asp Gly Lys Trp Ile Leu Thr Gly Ile Val Ser Trp Gly His Gly		
530	535	540
Cys Gly Arg Pro Asn Phe Pro Gly Val Tyr Thr Arg Val Ser Asn Phe		
545	550	555
Val Pro Trp Ile His Lys Tyr Val Pro Ser Leu Leu		
565	570	

<210> 453

<211> 134

<212> PRT

<213> Homo sapiens

<400> 453

Met Val Gly Leu Leu Phe His Ala Pro Lys Ala Pro Glu Met Ala Pro

1	5	10	15
---	---	----	----

Leu Arg Cys Cys Ile Met Asn Lys Ile Ile Met Val Arg Arg Pro Lys

20	25	30
----	----	----

Gln Ser Thr Ala Asp Tyr Gly Met Arg Thr Ser Gly Pro Val Glu Ser
 35 40 45
 Gly Leu Ser Ala Asp Ser Leu Gln Leu Leu Cys Ser Tyr Ala Ala Ile
 50 55 60
 Lys Asn Ser Ala Glu Leu Leu Met Val Gly Pro Gln Gly Met Arg Pro
 65 70 75 80
 Ala Thr Gly Gln Asp Leu Leu Cys Arg Pro Cys Leu Ser His Asp Leu
 85 90 95
 Pro Gly Pro Leu His Pro Pro Arg Gly Leu Ser Gly Ser Ser Ser Leu
 100 105 110
 Leu Ile Ser Pro Arg Leu Gln Asp Val Ser Leu Gln Leu Val His Pro
 115 120 125
 Thr Pro Glu Glu Ser Phe
 130

<210> 454

<211> 184

<212> PRT

<213> Homo sapiens

<400> 454

Met Pro Phe Arg Lys Ala Cys Gly Pro Lys Leu Thr Asn Ser Pro Thr
 1 5 10 15
 Val Ile Val Met Val Gly Leu Pro Ala Arg Gly Lys Thr Tyr Ile Ser
 20 25 30
 Lys Lys Leu Thr Arg Tyr Leu Tyr Trp Ile Gly Val Pro Thr Lys Val
 35 40 45
 Phe Asn Val Gly Glu Tyr Arg Arg Glu Ala Val Lys Gln Tyr Ser Ser

50	55	60	
Tyr Asn Phe Phe Arg Pro Asp Asn Glu Glu Ala Met Lys Val Arg Lys			
65	70	75	80
Gln Cys Ala Leu Ala Ala Leu Arg Asp Val Lys Ser Tyr Leu Ala Lys			
85	90	95	
Glu Gly Gly Gln Ile Ala Val Phe Asp Ala Thr Asn Thr Thr Arg Glu			
100	105	110	
Arg Arg His Met Ile Leu His Phe Ala Lys Glu Asn Asp Phe Lys Ala			
115	120	125	
Phe Phe Ile Glu Ser Val Cys Asp Asp Pro Thr Val Val Ala Ser Asn			
130	135	140	
Ile Met Gln Lys Ala Phe Gln Arg Asp Leu Ser Ala Thr Pro Leu Trp			
145	150	155	160
Cys Cys Arg Lys Leu Lys Ser Pro Ala Arg Ile Thr Lys Thr Ala Thr			
165	170	175	
Arg Gln Lys Pro Trp Thr Thr Ser			
180			

<210> 455

<211> 493

<212> PRT

<213> Homo sapiens

<400> 455

Met Gly Pro Thr Ser Val Leu Arg Ala Gly Leu Thr Pro Ser Cys Leu			
1	5	10	15
Pro Pro Pro Ser Gly Ala Thr Asn Gly Ser Val Ser Pro Leu Gly Arg			
20	25	30	

Ala Gln Arg Val Trp Thr Glu Pro Gly Gly Arg Gly Leu His Gly Ala
 35 40 45
 Thr Ala Ala Gly Pro Val Ala Ala Cys Pro Leu Leu Ala Val Thr
 50 55 60
 Ala Thr Ala Pro Gly Gln Pro Ser Gly Ala Ser Thr Val Trp Val Arg
 65 70 75 80
 Glu Gly Gly Thr Ala Pro Ala Thr Arg Met Thr Val Pro Leu Ala Pro
 85 90 95
 Arg Thr Ser Glu Lys Cys Ser Val Leu Asn Leu Thr Ala Ser Leu Ser
 100 105 110
 Val Gly Asn Ser Thr Ser Gly Lys Arg Thr Gly Glu Ala Cys Ser Leu
 115 120 125
 Thr Cys Leu Ala Glu Gly Phe Asn Phe Tyr Thr Glu Arg Ala Ala Ala
 130 135 140
 Val Val Asp Gly Thr Pro Cys Arg Pro Asp Thr Val Asp Ile Cys Val
 145 150 155 160
 Ser Gly Glu Cys Lys His Val Gly Cys Asp Arg Val Leu Gly Ser Asp
 165 170 175
 Leu Arg Glu Asp Lys Cys Arg Val Cys Gly Gly Asp Gly Ser Ala Cys
 180 185 190
 Glu Thr Ile Glu Gly Val Phe Ser Pro Ala Ser Pro Gly Ala Gly Tyr
 195 200 205
 Glu Asp Val Val Trp Ile Pro Lys Gly Ser Val His Ile Phe Ile Gln
 210 215 220
 Asp Leu Asn Leu Ser Leu Asn His Leu Ala Leu Lys Gly Asp Gln Glu
 225 230 235 240
 Ser Leu Leu Leu Glu Gly Leu Pro Gly Thr Pro Gln Pro His Arg Leu
 245 250 255
 Pro Leu Ala Gly Thr Thr Phe Gln Leu Arg Gln Gly Pro Asp Gln Val

260	265	270
Gln Ser Leu Glu Ala Leu Gly Pro Ile Asn Ala Ser Leu Ile Val Met		
275	280	285
Val Leu Ala Arg Thr Glu Leu Pro Ala Leu Arg Tyr Arg Phe Asn Ala		
290	295	300
Pro Ile Ala Arg Asp Ser Leu Pro Pro Tyr Ser Trp His Tyr Ala Pro		
305	310	315
Trp Thr Arg Cys Ser Ala Gln Cys Ala Gly Gly Ser Gln Val Gln Ala		
325	330	335
Val Glu Cys Arg Asn Gln Leu Asp Gly Ser Ala Val Ala Pro His Tyr		
340	345	350
Cys Ser Ala His Ser Lys Leu Pro Lys Arg Gln Arg Ala Cys Asn Thr		
355	360	365
Glu Pro Cys Pro Pro Asp Trp Val Val Gly Asn Trp Ser Leu Cys Ser		
370	375	380
Arg Ser Cys Asp Ala Gly Val Arg Ser Arg Ser Val Val Cys Gln Arg		
385	390	395
Arg Val Ser Ala Ala Glu Glu Lys Ala Leu Asp Asp Ser Ala Cys Pro		
405	410	415
Gln Pro Arg Pro Pro Val Leu Glu Ala Cys His Gly Pro Thr Cys Pro		
420	425	430
Pro Glu Trp Ala Ala Leu Asp Trp Ser Glu Cys Thr Pro Ser Cys Gly		
435	440	445
Pro Gly Leu Arg His Arg Val Val Leu Cys Lys Ser Ala Asp His Arg		
450	455	460
Ala Thr Leu Pro Pro Ala His Cys Ser Pro Ala Ala Lys Pro Pro Ala		
465	470	475
Thr Met Arg Cys Asn Leu Arg Arg Cys Pro Pro Ala Arg		
485	490	

<210> 456

<211> 803

<212> PRT

<213> Homo sapiens

<400> 456

Met Ile Ser Ala Gln Cys Asn Leu Cys Leu Pro Gly Ser Gly Asp Ser

1	5	10	15
---	---	----	----

Cys Ala Ser Gly Ser Gln Leu Ala Gly Thr Thr Val Ala Gly Pro Ala

20	25	30
----	----	----

His Pro Glu Ser Leu Thr Leu Cys Ser Gly Glu Ala Glu Arg Arg Gly

35	40	45
----	----	----

Lys Glu Glu Trp Pro Asp Ser His His Tyr Pro Gly Pro Thr Pro Ala

50	55	60
----	----	----

Pro Glu Ser Ser Asp Gly Pro His Lys Val Thr Val Leu Ala Thr Met

65	70	75	80
----	----	----	----

Leu Ser Ser Arg Trp Trp Pro Ser Ser Trp Gly Ile Leu Gly Leu Gly

85	90	95
----	----	----

Pro Arg Ser Pro Pro Arg Gly Ser Gln Leu Cys Ala Leu Tyr Ala Phe

100	105	110
-----	-----	-----

Thr Tyr Thr Gly Ala Asp Gly Gln Gln Val Ser Leu Ala Glu Gly Asp

115	120	125
-----	-----	-----

Arg Phe Leu Leu Leu Arg Lys Thr Asn Ser Asp Trp Trp Leu Ala Arg

130	135	140
-----	-----	-----

Arg Leu Glu Ala Pro Ser Thr Ser Arg Pro Ile Phe Val Pro Ala Ala

145	150	155	160
-----	-----	-----	-----

Tyr Met Ile Glu Glu Ser Ile Pro Ser Gln Ser Pro Thr Thr Val Ile

165	170	175
Pro Gly Gln Leu Leu Trp Thr Pro Gly Pro Lys Leu Phe His Gly Ser		
180	185	190
Leu Glu Glu Leu Ser Gln Ala Leu Pro Ser Arg Ala Gln Ala Ser Ser		
195	200	205
Glu Gln Pro Pro Pro Leu Pro Arg Lys Met Cys Arg Ser Val Ser Thr		
210	215	220
Asp Asn Leu Ser Pro Ser Leu Leu Lys Pro Phe Gln Glu Gly Pro Ser		
225	230	235
Gly Arg Ser Leu Ser Gln Glu Asn Leu Pro Pro Glu Ala Ser Ala Ser		
245	250	255
Thr Ala Gly Pro Gln Pro Leu Met Ser Glu Pro Pro Val Tyr Cys Asn		
260	265	270
Leu Val Asp Leu Arg Arg Cys Pro Arg Ser Pro Pro Pro Gly Pro Ala		
275	280	285
Cys Pro Leu Leu Gln Arg Pro Asp Ala Trp Glu Gln His Leu Asp Pro		
290	295	300
Asn Ser Gly Arg Cys Phe Tyr Ile Asn Ser Leu Thr Gly Cys Lys Ser		
305	310	315
Trp Lys Pro Pro Arg Arg Ser Arg Ser Glu Thr Asn Pro Gly Ser Met		
325	330	335
Glu Gly Thr Gln Thr Leu Lys Arg Asn Asn Asp Val Leu Gln Pro Gln		
340	345	350
Ala Lys Gly Phe Arg Ser Asp Thr Gly Thr Pro Glu Pro Leu Asp Pro		
355	360	365
Gln Gly Ser Leu Ser Leu Ser Gln Arg Thr Ser Gln Leu Asp Pro Pro		
370	375	380
Ala Leu Gln Ala Pro Arg Pro Leu Pro Gln Leu Leu Asp Asp Pro His		
385	390	395
400		

Glu Val Glu Lys Ser Gly Leu Leu Asn Met Thr Lys Ile Ala Gln Gly
 405 410 415
 Gly Arg Lys Leu Arg Lys Asn Trp Gly Pro Ser Trp Val Val Leu Thr
 420 425 430
 Gly Asn Ser Leu Val Phe Tyr Arg Glu Pro Pro Pro Thr Ala Pro Ser
 435 440 445
 Ala Gly Trp Gly Pro Ala Gly Ser Arg Pro Glu Ser Ser Val Asp Leu
 450 455 460
 Arg Gly Ala Ala Leu Ala His Gly Arg His Leu Ser Ser Arg Arg Asn
 465 470 475 480
 Val Leu His Ile Arg Thr Ile Pro Gly His Glu Phe Leu Leu Gln Ser
 485 490 495
 Asp His Glu Thr Glu Leu Arg Ala Trp His Arg Ala Leu Arg Thr Val
 500 505 510
 Ile Glu Arg Leu Asp Arg Glu Asn Pro Leu Glu Leu Arg Leu Ser Gly
 515 520 525
 Ser Gly Pro Ala Glu Leu Ser Ala Gly Glu Asp Glu Glu Glu Ser
 530 535 540
 Glu Leu Val Ser Lys Pro Leu Leu Arg Leu Ser Ser Arg Arg Ser Ser
 545 550 555 560
 Ile Arg Gly Pro Glu Gly Thr Glu Gln Asn Arg Val Arg Asn Lys Leu
 565 570 575
 Lys Arg Leu Ile Ala Lys Arg Pro Pro Leu Gln Ser Leu Gln Glu Arg
 580 585 590
 Gly Leu Leu Arg Asp Gln Val Phe Gly Cys Gln Leu Glu Ser Leu Cys
 595 600 605
 Gln Arg Glu Gly Asp Thr Val Pro Ser Phe Leu Arg Leu Cys Ile Ala
 610 615 620
 Ala Val Asp Lys Arg Gly Leu Asp Val Asp Gly Ile Tyr Arg Val Ser

625	630	635	640
Gly Asn Leu Ala Val Val Gln Lys Leu Arg Phe Leu Val Asp Arg Glu			
645	650	655	
Arg Ala Val Thr Ser Asp Gly Arg Tyr Val Phe Pro Glu Gln Pro Gly			
660	665	670	
Gln Glu Gly Arg Leu Asp Leu Asp Ser Thr Glu Trp Asp Asp Ile His			
675	680	685	
Val Val Thr Gly Ala Leu Lys Leu Phe Leu Arg Glu Leu Pro Gln Pro			
690	695	700	
Leu Val Pro Pro Leu Leu Leu Pro His Phe Arg Ala Ala Leu Ala Leu			
705	710	715	720
Ser Gln Ile Gln Glu Leu Ile Gly Ser Met Pro Lys Pro Asn His Asp			
725	730	735	
Thr Leu Arg Tyr Leu Leu Glu His Leu Cys Arg Val Ile Ala His Ser			
740	745	750	
Asp Lys Asn Arg Met Thr Pro His Asn Leu Gly Ile Val Phe Gly Pro			
755	760	765	
Thr Leu Phe Arg Pro Glu Gln Glu Thr Ser Asp Pro Ala Ala His Ala			
770	775	780	
Leu Tyr Pro Gly Gln Leu Val Gln Leu Met Leu Thr Asn Phe Thr Ser			
785	790	795	800
Leu Phe Pro			

<210> 457

<211> 892

<212> PRT

<213> Homo sapiens

<400> 457

Met Gln Asp Leu Lys Lys Tyr Lys Lys Lys Gln Lys Arg Met Lys
 1 5 10 15
 Ser Arg Lys Val Arg Lys Pro Thr Glu Asn Gln Glu Lys Asn Ile Arg
 20 25 30
 Lys Arg Glu Arg Arg Lys Lys Ser Lys Arg Arg Lys Arg Glu Lys His
 35 40 45
 Lys His Asn Ser Pro Ser Asp Asp Ser Ser Asp Tyr Ser Leu Asp
 50 55 60
 Ser Asp Val Glu His Thr Glu Ser Ser His Lys Lys Arg Thr Gly Phe
 65 70 75 80
 Tyr Arg Asp Tyr Asp Ile Pro Phe Thr Gln Arg Gly His Ile Ser Gly
 85 90 95
 Ser Tyr Ile Thr Ser Lys Lys Gly Gln His Asn Lys Lys Phe Lys Ser
 100 105 110
 Lys Glu Tyr Asp Glu Tyr Ser Thr Tyr Ser Asp Asp Asn Phe Gly Asn
 115 120 125
 Tyr Ser Asp Asp Asn Phe Gly Asn Tyr Gly Gln Glu Thr Glu Glu Asp
 130 135 140
 Phe Ala Asn Gln Leu Lys Gln Tyr Arg Gln Ala Lys Glu Thr Ser Asn
 145 150 155 160
 Ile Ala Leu Gly Ser Ser Phe Ser Lys Glu Ser Gly Lys Lys Gln Arg
 165 170 175
 Met Lys Gly Val Gln Gln Gly Ile Glu Gln Arg Val Lys Ser Phe Asn
 180 185 190
 Val Gly Arg Gly Arg Gly Leu Pro Lys Lys Ile Lys Arg Lys Glu Arg
 195 200 205
 Gly Gly Arg Thr Asn Lys Gly Pro Asn Val Phe Ser Val Ser Asp Asp

210	215	220
Phe Gln Glu Tyr Asn Lys Pro Gly Lys Lys Trp Lys Val Met Thr Gln		
225	230	235
Glu Phe Ile Asn Gln His Thr Val Glu His Lys Gly Lys Gln Ile Cys		
245	250	255
Lys Tyr Phe Leu Glu Gly Arg Cys Ile Lys Gly Asp Gln Cys Lys Phe		
260	265	270
Asp His Asp Ala Glu Leu Glu Lys Arg Lys Glu Ile Cys Lys Phe Tyr		
275	280	285
Leu Gln Gly Tyr Cys Thr Lys Gly Glu Asn Cys Ile Tyr Met His Asn		
290	295	300
Glu Phe Pro Cys Lys Phe Tyr His Ser Gly Ala Lys Cys Tyr Gln Gly		
305	310	315
Asp Asn Cys Lys Phe Ser His Asp Asp Leu Thr Lys Glu Thr Lys Lys		
325	330	335
Leu Leu Asp Lys Val Leu Asn Thr Asp Glu Glu Leu Ile Asn Glu Asp		
340	345	350
Glu Arg Glu Leu Glu Glu Leu Arg Lys Arg Gly Ile Thr Pro Leu Pro		
355	360	365
Lys Pro Pro Pro Gly Val Gly Leu Leu Pro Thr Pro Pro Glu His Phe		
370	375	380
Pro Phe Ser Asp Pro Glu Asp Asp Phe Gln Thr Asp Phe Ser Asp Asp		
385	390	395
Phe Arg Lys Ile Pro Ser Leu Phe Glu Ile Val Val Lys Pro Thr Val		
405	410	415
Asp Leu Ala His Lys Ile Gly Arg Lys Pro Pro Ala Phe Tyr Thr Ser		
420	425	430
Ala Ser Pro Pro Gly Pro Gln Phe Gln Gly Ser Ser Pro His Pro Gln		
435	440	445

His Ile Tyr Ser Ser Gly Ser Ser Pro Gly Pro Gly Pro Asn Met Ser
 450 455 460
 Gln Gly His Ser Ser Pro Val Met His Pro Gly Ser Pro Gly His His
 465 470 475 480
 Pro Cys Ala Gly Pro Pro Gly Leu Pro Val Pro Gln Ser Pro Pro Leu
 485 490 495
 Pro Pro Gly Pro Pro Glu Ile Val Gly Pro Gln Asn Gln Ala Gly Val
 500 505 510
 Leu Val Gln Pro Asp Thr Ser Leu Thr Pro Pro Ser Met Gly Gly Ala
 515 520 525
 Tyr His Ser Pro Gly Phe Pro Gly His Val Met Lys Val Pro Arg Glu
 530 535 540
 Asn His Cys Ser Pro Gly Ser Ser Tyr Gln Gln Ser Pro Gly Glu Met
 545 550 555 560
 Gln Leu Asn Thr Asn Tyr Glu Ser Leu Gln Asn Pro Ala Glu Phe Tyr
 565 570 575
 Asp Asn Tyr Tyr Ala Gln His Ser Ile His Asn Phe Gln Pro Pro Asn
 580 585 590
 Asn Ser Gly Asp Gly Met Trp His Gly Glu Phe Ala Gln Gln Gln Pro
 595 600 605
 Pro Val Val Gln Asp Ser Pro Asn His Gly Ser Gly Ser Asp Gly Ser
 610 615 620
 Ser Thr Arg Thr Gly His Gly Pro Leu Pro Val Pro Gly Leu Leu Pro
 625 630 635 640
 Ala Val Gln Arg Ala Leu Phe Val Arg Leu Thr Gln Arg Tyr Gln Glu
 645 650 655
 Asp Glu Glu Gln Thr Ser Thr Gln Pro His Arg Ala Pro Ser Lys Glu
 660 665 670
 Glu Asp Asp Thr Val Asn Trp Tyr Ser Ser Glu Glu Glu Glu Gly

675	680	685
Ser Ser Val Lys Ser Ile Leu Lys Thr Leu Gln Lys Gln Thr Glu Thr		
690	695	700
Leu Arg Asn Gln Gln Gln Pro Ser Thr Glu Leu Ser Thr Pro Thr Asp		
705	710	715
Pro Arg Leu Ala Lys Glu Lys Ser Lys Gly Asn Gln Val Val Asp Pro		
725	730	735
Arg Leu Arg Thr Ile Pro Arg Gln Asp Ile Arg Lys Pro Ser Glu Ser		
740	745	750
Ala Pro Leu Asp Leu Arg Leu Ala Trp Asp Pro Arg Lys Leu Arg Gly		
755	760	765
Asn Gly Ser Gly His Ile Gly Ser Ser Val Gly Gly Ala Lys Phe Asp		
770	775	780
Leu His His Ala Asn Ala Gly Thr Asn Val Lys His Lys Arg Gly Asp		
785	790	795
Asp Asp Asp Glu Asp Thr Glu Arg Glu Leu Gly Glu Lys Ala Phe Leu		
805	810	815
Ile Pro Leu Asp Ala Ser Pro Gly Ile Met Leu Gln Asp Pro Arg Ser		
820	825	830
Gln Leu Arg Gln Phe Ser His Ile Lys Lys Asp Ile Thr Leu Thr Lys		
835	840	845
Pro Asn Phe Ala Lys His Ile Val Trp Ala Pro Glu Asp Leu Leu Pro		
850	855	860
Val Pro Leu Pro Lys Pro Asp Pro Val Ser Ser Ile Asn Leu Pro Leu		
865	870	875
Pro Pro Leu Ile Ala Asp Gln Arg Leu Asn Arg Leu		
885	890	

<210> 458

<211> 891

<212> PRT

<213> Homo sapiens

<400> 458

Met Ala Leu Thr Gln Gly Pro Leu Thr Phe Arg Asp Val Ala Ile Glu

1

5

10

15

Phe Ser Gln Glu Glu Trp Lys Ser Leu Asp Pro Val Gln Lys Ala Leu

20

25

30

Tyr Trp Asp Val Met Leu Glu Asn Tyr Arg Asn Leu Val Phe Leu Gly

35

40

45

Ile Leu Pro Lys Cys Met Thr Lys Glu Leu Pro Pro Ile Gly Asn Ser

50

55

60

Asn Thr Gly Glu Lys Cys Gln Thr Val Thr Leu Glu Arg His Glu Cys

65

70

75

80

Tyr Asp Val Glu Asn Phe Tyr Leu Arg Glu Ile Gln Lys Asn Leu Gln

85

90

95

Asp Leu Glu Phe Gln Trp Lys Asp Gly Glu Ile Asn Tyr Lys Glu Val

100

105

110

Pro Met Thr Tyr Lys Asn Asn Leu Asn Gly Lys Arg Gly Gln His Ser

115

120

125

Gln Glu Asp Val Glu Asn Lys Cys Ile Glu Asn Gln Leu Thr Leu Ser

130

135

140

Phe Gln Ser Arg Leu Thr Glu Leu Gln Lys Phe Gln Thr Glu Gly Lys

145

150

155

160

Ile Tyr Glu Cys Asn Gln Ser Glu Lys Thr Val Asn Asn Ser Ser Leu

165

170

175

Val Ser Pro Leu Gln Arg Ile Leu Pro Ser Val Gln Thr Asn Ile Ser

180	185	190
Lys Lys Tyr Glu Asn Glu Phe Leu Gln Leu Ser Leu Pro Thr Gln Leu		
195	200	205
Glu Lys Thr His Ile Arg Glu Lys Pro Tyr Ile Cys Lys Gly Cys Gly		
210	215	220
Lys Ala Phe Arg Val Ser Ser Leu Ile Asn His Gln Met Val His		
225	230	235
Thr Thr Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe His		
245	250	255
Arg Gly Ser Leu Leu Thr Ile His Gln Ile Val His Thr Arg Gly Lys		
260	265	270
Pro Tyr Gln Cys Gly Val Cys Gly Lys Ile Phe Arg Gln Asn Ser Asp		
275	280	285
Leu Val Asn His Arg Arg Ser His Thr Gly Glu Lys Pro Tyr Lys Cys		
290	295	300
Asn Glu Cys Gly Lys Ser Phe Ser Gln Ser Tyr Asn Leu Ala Ile His		
305	310	315
Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly		
325	330	335
Lys Thr Phe Lys Gln Gly Ser Cys Leu Thr Thr His Gln Ile Ile His		
340	345	350
Thr Gly Glu Lys Pro Tyr Gln Cys Asp Ile Cys Gly Lys Val Phe Arg		
355	360	365
Gln Asn Ser Asn Leu Val Asn His Gln Arg Ile His Thr Gly Glu Lys		
370	375	380
Pro Tyr Lys Cys Asn Ile Cys Gly Lys Ser Phe Ser Gln Ser Ser Asn		
385	390	395
Leu Ala Thr His Gln Thr Val His Ser Gly Asn Lys Pro Tyr Lys Cys		
405	410	415

Asp Glu Cys Gly Lys Thr Phe Lys Arg Ser Ser Ser Leu Thr Thr His
 420 425 430
 Gln Val Ile His Thr Gly Glu Lys Pro Tyr Thr Cys Asp Val Cys Asp
 435 440 445
 Lys Val Phe Ser Gln Arg Ser Gln Leu Ala Arg His Gln Arg Gly His
 450 455 460
 Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Ser
 465 470 475 480
 Gln Thr Ser His Leu Val Gly His Arg Arg Ile His Thr Gly Glu Lys
 485 490 495
 Pro Tyr Lys Cys Asp Lys Cys Gly Lys Ala Phe Lys Gln Gly Ser Leu
 500 505 510
 Leu Thr Arg His Lys Ile Ile His Thr Arg Glu Lys Arg Tyr Gln Cys
 515 520 525
 Gly Glu Cys Gly Lys Val Phe Ser Glu Asn Ser Cys Leu Val Arg His
 530 535 540
 Leu Arg Ile His Thr Gly Glu Gln Pro Tyr Lys Cys Asn Val Cys Gly
 545 550 555 560
 Lys Val Phe Asn Tyr Ser Gly Asn Leu Ser Ile His Lys Arg Ile Arg
 565 570 575
 Thr Gly Glu Lys Pro Phe Gln Cys Asn Glu Cys Gly Thr Val Phe Arg
 580 585 590
 Asn Tyr Ser Cys Leu Ala Arg His Leu Arg Ile His Thr Gly Gln Lys
 595 600 605
 Pro Tyr Lys Cys Asn Val Cys Gly Lys Val Phe Asn Asp Ser Gly Asn
 610 615 620
 Leu Ser Asn His Lys Arg Ile His Thr Gly Glu Lys Pro Phe Gln Cys
 625 630 635 640
 Asn Glu Cys Gly Lys Val Phe Ser Tyr Tyr Ser Cys Leu Ala Arg His

645	650	655
Arg Lys Ile His Ala Gly Glu Lys Pro Tyr Lys Cys Asn Asp Cys Gly		
660	665	670
Lys Ala Tyr Thr Gln Arg Ser Ser Leu Thr Lys His Leu Ile Ile His		
675	680	685
Thr Gly Glu Lys Pro Tyr Asn Cys Asn Glu Phe Gly Gly Ala Phe Ile		
690	695	700
Gln Ser Ser Lys Leu Ala Arg Tyr His Arg Asn Pro Thr Gly Glu Lys		
705	710	715
Pro His Lys Cys Ser His Cys Gly Arg Thr Phe Ser His Ile Thr Gly		
725	730	735
Leu Thr Tyr His Gln Arg Arg His Thr Gly Glu Met Pro Tyr Lys Cys		
740	745	750
Ile Glu Cys Gly Gln Val Phe Asn Ser Thr Ser Asn Leu Ala Arg His		
755	760	765
Arg Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly		
770	775	780
Lys Val Phe Arg His Gln Ser Thr Leu Ala Arg His Arg Ser Ile His		
785	790	795
Thr Gly Glu Lys Pro Tyr Val Cys Ser Glu Cys Gly Lys Ala Phe Arg		
805	810	815
Val Arg Ser Ile Leu Val Asn His Gln Lys Met His Thr Gly Asp Lys		
820	825	830
Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Ile Glu Arg Ser Lys		
835	840	845
Leu Val Tyr His Gln Arg Asn His Thr Gly Glu Lys Pro Tyr Lys Cys		
850	855	860
Ile Glu Cys Gly Lys Ala Phe Gly Arg Phe Ser Cys Leu Asn Lys His		
865	870	875
880		

Gln Met Ile His Ser Gly Glu Lys Pro Tyr Lys

885

890

<210> 459

<211> 374

<212> PRT

<213> Homo sapiens

<400> 459

Met Ile Glu Tyr Gln Ile Pro Val Ser Phe Lys Asp Val Val Val Gly

1

5

10

15

Phe Thr Gln Glu Glu Trp His Arg Leu Ser Pro Ala Gln Arg Ala Leu

20

25

30

Tyr Arg Asp Val Met Leu Glu Thr Tyr Ser Asn Leu Ala Ser Val Gly

35

40

45

Tyr Glu Gly Thr Lys Pro Asp Val Ile Leu Arg Leu Glu Gln Glu Glu

50

55

60

Ala Pro Trp Ile Gly Glu Ala Ala Cys Pro Gly Cys His Cys Trp Glu

65

70

75

80

Asp Ile Trp Arg Val Asn Ile Gln Arg Lys Arg Arg Gln Asp Met Leu

85

90

95

Leu Arg Pro Gly Ala Ala Ile Ser Lys Lys Thr Leu Pro Lys Glu Lys

100

105

110

Ser Cys Glu Tyr Asn Lys Phe Gly Lys Ile Ser Leu Leu Ser Thr Asp

115

120

125

Leu Phe Ser Ser Ile Gln Ser Pro Ser Asn Trp Asn Pro Cys Gly Lys

130

135

140

Asn Leu Asn His Asn Leu Asp Leu Ile Gly Phe Lys Arg Asn Cys Ala

145	150	155	160
Lys Lys Gln Asp Glu Cys Tyr Ala Tyr Gly Lys Leu Leu Gln Arg Ile			
165	170	175	
Asn His Gly Arg Arg Pro Asn Gly Glu Lys Pro Arg Gly Cys Ser His			
180	185	190	
Cys Glu Lys Ala Phe Thr Gln Asn Pro Ala Leu Met Tyr Lys Pro Ala			
195	200	205	
Val Ser Asp Ser Leu Leu Tyr Lys Arg Lys Arg Val Pro Pro Thr Glu			
210	215	220	
Lys Pro His Val Cys Ser Glu Cys Gly Lys Ala Phe Cys Tyr Lys Ser			
225	230	235	240
Glu Phe Ile Arg His Gln Arg Ser His Thr Gly Glu Lys Pro Tyr Gly			
245	250	255	
Cys Thr Asp Cys Gly Lys Ala Phe Ser His Lys Ser Thr Leu Ile Lys			
260	265	270	
His Gln Arg Ile His Thr Gly Val Arg Pro Phe Glu Cys Phe Phe Cys			
275	280	285	
Gly Lys Ala Phe Thr Gln Lys Ser His Arg Thr Glu His Gln Arg Thr			
290	295	300	
His Thr Gly Glu Arg Pro Phe Val Cys Ser Glu Cys Gly Lys Ser Phe			
305	310	315	320
Gly Glu Lys Ser Tyr Leu Asn Val His Arg Lys Met His Thr Gly Glu			
325	330	335	
Arg Pro Tyr Arg Cys Arg Glu Cys Gly Lys Ser Phe Ser Gln Lys Ser			
340	345	350	
Cys Leu Asn Lys His Trp Arg Thr His Phe Gly Glu Ser Ser Leu Arg			
355	360	365	
Ser Lys Ser Ser Asn Thr			
370			

<210> 460

<211> 896

<212> PRT

<213> Homo sapiens

<400> 460

Met	Thr	Glu	Glu	Ser	Glu	Glu	Thr	Val	Leu	Tyr	Ile	Glu	His	Arg	Tyr
1		5						10				15			
Val	Cys	Ser	Glu	Cys	Asn	Gln	Leu	Tyr	Gly	Ser	Leu	Glu	Glu	Val	Leu
	20						25				30				
Met	His	Gln	Asn	Ser	His	Val	Pro	Gln	Gln	His	Phe	Glu	Leu	Val	Gly
	35				40					45					
Val	Ala	Asp	Pro	Gly	Val	Thr	Val	Ala	Thr	Asp	Thr	Ala	Ser	Gly	Thr
	50				55			60							
Gly	Leu	Tyr	Gln	Thr	Leu	Val	Gln	Glu	Ser	Gln	Tyr	Gln	Cys	Leu	Glu
	65				70			75			80				
Cys	Gly	Gln	Leu	Leu	Met	Ser	Pro	Ser	Gln	Leu	Leu	Glu	His	Gln	Glu
	85				90			95							
Leu	His	Leu	Lys	Met	Met	Ala	Pro	Gln	Glu	Ala	Val	Pro	Ala	Glu	Pro
	100				105			110							
Ser	Pro	Lys	Ala	Pro	Pro	Leu	Ser	Ser	Ser	Thr	Ile	His	Tyr	Glu	Cys
	115				120			125							
Val	Asp	Cys	Lys	Ala	Leu	Phe	Ala	Ser	Gln	Glu	Leu	Trp	Leu	Asn	His
	130				135			140							
Arg	Gln	Thr	His	Leu	Arg	Ala	Thr	Pro	Thr	Lys	Ala	Pro	Ala	Pro	Val
	145				150			155			160				
Val	Leu	Gly	Ser	Pro	Val	Val	Leu	Gly	Pro	Pro	Val	Gly	Gln	Ala	Arg

	165	170	175
Val Ala Val Glu His Ser Tyr Arg Lys Ala Glu Glu Gly Gly Glu Gly			
	180	185	190
Ala Thr Val Pro Ser Ala Ala Ala Thr Thr Thr Glu Val Val Thr Glu			
	195	200	205
Val Glu Leu Leu Leu Tyr Lys Cys Ser Glu Cys Ser Gln Leu Phe Gln			
	210	215	220
Leu Pro Ala Asp Phe Leu Glu His Gln Ala Thr His Phe Pro Ala Pro			
	225	230	235
Val Pro Glu Ser Gln Glu Pro Ala Leu Gln Gln Glu Val Gln Ala Ser			
	245	250	255
Ser Pro Ala Glu Val Pro Val Ser Gln Pro Asp Pro Leu Pro Ala Ser			
	260	265	270
Asp His Ser Tyr Glu Leu Arg Asn Gly Glu Ala Ile Gly Arg Asp Arg			
	275	280	285
Arg Gly Arg Arg Ala Arg Arg Asn Asn Ser Gly Glu Ala Gly Gly Ala			
	290	295	300
Ala Thr Gln Glu Leu Phe Cys Ser Ala Cys Asp Gln Leu Phe Leu Ser			
	305	310	315
Pro His Gln Leu Gln Gln His Leu Arg Ser His Arg Glu Gly Val Phe			
	325	330	335
Lys Cys Pro Leu Cys Ser Arg Val Phe Pro Ser Pro Ser Leu Asp			
	340	345	350
Gln His Leu Gly Asp His Ser Ser Glu Ser His Phe Leu Cys Val Asp			
	355	360	365
Cys Gly Leu Ala Phe Gly Thr Glu Ala Leu Leu Leu Ala His Arg Arg			
	370	375	380
Ala His Thr Pro Asn Pro Leu His Ser Cys Pro Cys Gly Lys Thr Phe			
	385	390	395
			400

Val Asn Leu Thr Lys Phe Leu Tyr His Arg Arg Thr His Gly Val Gly
 405 410 415
 Gly Val Pro Leu Pro Thr Thr Pro Val Pro Pro Glu Glu Pro Val Ile
 420 425 430
 Gly Phe Pro Glu Pro Ala Pro Ala Glu Thr Gly Glu Pro Glu Ala Pro
 435 440 445
 Glu Pro Pro Val Ser Glu Glu Thr Ser Ala Gly Pro Ala Ala Pro Gly
 450 455 460
 Thr Tyr Arg Cys Leu Leu Cys Ser Arg Glu Phe Gly Lys Ala Leu Gln
 465 470 475 480
 Leu Thr Arg His Gln Arg Phe Val His Arg Leu Glu Arg Arg His Lys
 485 490 495
 Cys Ser Ile Cys Gly Lys Met Phe Lys Lys Ser His Val Arg Asn
 500 505 510
 Arg Leu Arg Thr His Thr Gly Glu Arg Pro Phe Pro Cys Pro Asp Cys
 515 520 525
 Ser Lys Pro Phe Asn Ser Pro Ala Asn Leu Ala Arg His Arg Leu Thr
 530 535 540
 His Thr Gly Glu Arg Pro Tyr Arg Cys Gly Asp Cys Gly Lys Ala Phe
 545 550 555 560
 Thr Gln Ser Ser Thr Leu Arg Gln His Arg Leu Val His Ala Gln His
 565 570 575
 Phe Pro Tyr Arg Cys Gln Glu Cys Gly Val Arg Phe His Arg Pro Tyr
 580 585 590
 Arg Leu Leu Met His Arg Tyr His His Thr Gly Glu Tyr Pro Tyr Lys
 595 600 605
 Cys Arg Glu Cys Pro Arg Ser Phe Leu Leu Arg Arg Leu Leu Glu Val
 610 615 620
 His Gln Leu Val Val His Ala Gly Arg Gln Pro His Arg Cys Pro Ser

625	630	635	640
Cys Gly Ala Ala Phe Pro Ser Ser Leu Arg Leu Arg Glu His Arg Cys			
645	650	655	
Ala Ala Ala Ala Ala Gln Ala Pro Arg Arg Phe Glu Cys Gly Thr Cys			
660	665	670	
Gly Lys Lys Val Gly Ser Ala Ala Arg Leu Gln Ala His Glu Ala Ala			
675	680	685	
His Ala Ala Ala Gly Pro Gly Glu Val Leu Ala Lys Glu Pro Pro Ala			
690	695	700	
Pro Arg Ala Pro Arg Ala Thr Arg Ala Pro Val Ala Ser Pro Ala Ala			
705	710	715	720
Leu Gly Ser Thr Ala Thr Ala Ser Pro Ala Ala Pro Ala Arg Arg Arg			
725	730	735	
Gly Leu Glu Cys Ser Glu Cys Lys Lys Leu Phe Ser Thr Glu Thr Ser			
740	745	750	
Leu Gln Val His Arg Arg Ile His Thr Gly Glu Arg Pro Tyr Pro Cys			
755	760	765	
Pro Asp Cys Gly Lys Ala Phe Arg Gln Ser Thr His Leu Lys Asp His			
770	775	780	
Arg Arg Leu His Thr Gly Glu Arg Pro Phe Ala Cys Glu Val Cys Gly			
785	790	795	800
Lys Ala Phe Ala Ile Ser Met Arg Leu Ala Glu His Arg Arg Ile His			
805	810	815	
Thr Gly Glu Arg Pro Tyr Ser Cys Pro Asp Cys Gly Lys Ser Tyr Arg			
820	825	830	
Ser Phe Ser Asn Leu Trp Lys His Arg Lys Thr His Gln Gln Gln His			
835	840	845	
Gln Ala Ala Val Arg Gln Gln Leu Ala Glu Ala Glu Ala Val Gly			
850	855	860	

Leu Ala Val Met Glu Thr Ala Val Glu Ala Leu Pro Leu Val Glu Ala
 865 870 875 880
 Ile Glu Ile Tyr Pro Leu Ala Glu Ala Glu Gly Val Gln Ile Ser Gly
 885 890 895

<210> 461

<211> 464

<212> PRT

<213> Homo sapiens

<400> 461

Met Phe Glu Asn Glu Ser Arg Lys Ile Phe Ser Glu Met Pro Glu Gly
 1 5 10 15

Glu Ser Ala Gln His Ser Asp Gly Glu Ser Asp Phe Glu Arg Asp Ala
 20 25 30

Gly Ile Gln Arg Leu Gln Gly His Thr Pro Gly Glu Asp His Gly Glu
 35 40 45

Val Val Ser Gln Asp Arg Glu Val Gly Gln Leu Ile Gly Leu Gln Gly
 50 55 60

Thr Tyr Leu Gly Glu Lys Pro Tyr Glu Cys Pro Gln Cys Gly Lys Thr
 65 70 75 80

Phe Ser Pro Lys Ser His Leu Ile Thr His Glu Arg Thr His Thr Gly
 85 90 95

Glu Lys Tyr Tyr Lys Cys Asp Glu Cys Gly Lys Ser Phe Ser Asp Gly
 100 105 110

Ser Asn Phe Ser Arg His Gln Thr Thr His Thr Gly Glu Lys Pro Tyr
 115 120 125

Lys Cys Arg Asp Cys Gly Lys Ser Phe Ser Arg Ser Ala Asn Leu Ile

130	135	140
Thr His Gln Arg Ile His Thr Gly Glu Lys Pro Phe Gln Cys Ala Glu		
145	150	155
Cys Gly Lys Ser Phe Ser Arg Ser Pro Asn Leu Ile Ala His Gln Arg		
165	170	175
Thr His Thr Gly Glu Lys Pro Tyr Ser Cys Pro Glu Cys Gly Lys Ser		
180	185	190
Phe Gly Asn Arg Ser Ser Leu Asn Thr His Gln Gly Ile His Thr Gly		
195	200	205
Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Glu Ser Phe Ser Tyr Asn		
210	215	220
Ser Asn Leu Ile Arg His Gln Arg Ile His Thr Gly Glu Glu Pro Tyr		
225	230	235
Lys Cys Thr Asp Cys Gly Gln Arg Phe Ser Gln Ser Ser Ala Leu Ile		
245	250	255
Thr His Arg Arg Thr His Thr Gly Glu Lys Pro Tyr Gln Cys Ser Glu		
260	265	270
Cys Gly Lys Ser Phe Ser Arg Ser Ser Asn Leu Ala Thr His Arg Arg		
275	280	285
Thr His Met Val Glu Lys Pro Tyr Lys Cys Gly Val Cys Gly Lys Ser		
290	295	300
Phe Ser Gln Ser Ser Ser Leu Ile Ala His Gln Gly Met His Thr Gly		
305	310	315
Glu Lys Pro Tyr Glu Cys Leu Thr Cys Gly Glu Ser Phe Ser Trp Ser		
325	330	335
Ser Asn Leu Leu Lys His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr		
340	345	350
Lys Cys Ser Glu Cys Gly Lys Cys Phe Ser Gln Arg Ser Gln Leu Val		
355	360	365

Val His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Leu Met
 370 375 380
 Cys Gly Lys Ser Phe Ser Arg Gly Ser Ile Leu Val Met His Gln Arg
 385 390 395 400
 Ala His Leu Gly Asp Lys Pro Tyr Arg Cys Pro Glu Cys Gly Lys Gly
 405 410 415
 Phe Ser Trp Asn Ser Val Leu Ile Ile His Gln Arg Ile His Thr Gly
 420 425 430
 Glu Lys Pro Tyr Lys Cys Pro Glu Cys Gly Lys Gly Phe Ser Asn Ser
 435 440 445
 Ser Asn Phe Ile Thr His Gln Arg Thr His Met Lys Glu Lys Leu Tyr
 450 455 460

<210> 462

<211> 347

<212> PRT

<213> Homo sapiens

<400> 462

Met Ser Gly Pro Gly Asn Lys Arg Ala Ala Gly Asp Gly Ser Gly
 1 5 10 15
 Pro Pro Glu Lys Lys Leu Ser Arg Glu Glu Lys Thr Thr Thr Leu
 20 25 30
 Ile Glu Pro Ile Arg Leu Gly Gly Ile Ser Ser Thr Glu Glu Met Asp
 35 40 45
 Leu Lys Val Leu Gln Phe Lys Asn Lys Lys Leu Ala Glu Arg Leu Glu
 50 55 60
 Gln Arg Gln Ala Cys Glu Asp Glu Leu Arg Glu Arg Ile Glu Lys Leu

65	70	75	80
Glu Lys Arg Gln Ala Thr Asp Asp Ala Thr Leu Leu Ile Val Asn Arg			
85	90	95	
Tyr Trp Ala Gln Leu Asp Glu Thr Val Glu Ala Leu Leu Arg Cys His			
100	105	110	
Glu Ser Arg Ile Arg Glu Leu Glu Glu Arg Asp Arg Arg Glu Ser Lys			
115	120	125	
Lys Ile Ala Asp Glu Asp Ala Leu Arg Arg Ile Arg Gln Ala Glu Glu			
130	135	140	
Gln Ile Glu His Leu Gln Arg Lys Leu Gly Ala Thr Lys Gln Glu Glu			
145	150	155	160
Glu Ala Leu Leu Ser Glu Met Asp Ala Gln Leu Leu Thr Val Gln Lys			
165	170	175	
Leu Glu Glu Lys Glu Arg Ala Leu Gln Gly Ser Leu Gly Gly Val Glu			
180	185	190	
Lys Glu Leu Thr Leu Arg Ser Gln Ala Leu Glu Leu Asn Lys Arg Lys			
195	200	205	
Ala Val Glu Ala Ala Gln Leu Ala Glu Asp Leu Lys Val Gln Leu Glu			
210	215	220	
His Val Gln Thr Arg Leu Arg Glu Ile Gln Pro Cys Leu Ala Glu Ser			
225	230	235	240
Arg Ala Ala Arg Glu Lys Glu Ser Phe Asn Leu Lys Arg Ala Gln Glu			
245	250	255	
Asp Ile Ser Arg Leu Arg Arg Lys Leu Glu Lys Gln Arg Lys Val Glu			
260	265	270	
Val Tyr Ala Asp Ala Asp Glu Ile Leu Gln Glu Glu Ile Lys Glu Tyr			
275	280	285	
Lys Ala Arg Leu Thr Cys Pro Cys Cys Asn Thr Arg Lys Lys Asp Ala			
290	295	300	

Val Leu Thr Lys Cys Phe His Val Phe Cys Phe Glu Cys Val Arg Gly
 305 310 315 320
 Arg Tyr Glu Ala Arg Gln Arg Lys Cys Pro Lys Cys Asn Ala Ala Phe
 325 330 335
 Gly Ala His Asp Phe His Arg Ile Tyr Ile Ser
 340 345

<210> 463

<211> 997

<212> PRT

<213> Homo sapiens

<400> 463

Met Glu Ala Ser Trp Arg Gln Val Ala Gly Gly Arg Gly Arg Ser Arg
 1 5 10 15
 Gly Arg Ala Thr Ala Ala Pro Ser Gly Asn Gly Val His Leu Arg Gly
 20 25 30

Ala Gly Gly Gly Arg Glu Lys Gly Ser Val Gly Ala Val Pro Ser Gly
 35 40 45

Thr Ser Pro Gly Gly Val Ala Thr Thr Ala Ala Gly Ser Arg His
 50 55 60

Ser Pro Ala Gly Ser Gln Ala Leu Gln Thr Thr Ala Ala Ser Glu Leu
 65 70 75 80

Met Ser Gln Lys Lys Phe Glu Glu Ile Lys Lys Ala Asn Gln Ala Ala
 85 90 95

Ala Arg Lys Leu Val Glu Glu Gln Phe Ser Ser Ser Glu Glu Gly
 100 105 110

Asp Glu Asp Phe Glu Gly Lys Gln Gly Lys Ile Leu Ala Asn Thr Phe

115	120	125
Ile Thr Tyr Thr Gln Thr Asp Gly Asp Thr Arg Glu Leu Glu Arg		
130	135	140
Thr Lys Gln Tyr Val Asn Glu Ala Phe Gln Ala Gly Ala Met Thr Cys		
145	150	155
Leu Ile Cys Ile Ala Ser Val Lys Arg Asn Gln Ala Val Trp Ser Cys		160
165	170	175
Ser Gly Cys Phe Cys Ile Phe His Met Pro Cys Ile Gln Lys Trp Ala		
180	185	190
Lys Asp Ser Gln Phe Leu Val Ser Ser Val Thr Asp Asp Asp Phe Gly		
195	200	205
Lys Lys Asp Cys Pro Trp Pro Cys Pro Lys Cys Arg Phe Glu Tyr Lys		
210	215	220
Arg Ser Glu Thr Pro Ser Arg Tyr Tyr Cys Tyr Cys Gly Lys Val Glu		
225	230	235
Asp Pro Pro Leu Asp Pro Trp Leu Val Pro His Ser Cys Gly Gln Val		240
245	250	255
Cys Glu Arg Glu Phe Lys Pro Pro Cys Gly His Lys Cys Leu Leu Leu		
260	265	270
Cys His Pro Gly Pro Cys Pro Pro Cys Pro Lys Met Val Thr Thr Thr		
275	280	285
Cys Tyr Cys Lys Lys Ala Lys Pro Ile Pro Arg Arg Cys Ser Ala Lys		
290	295	300
Glu Trp Ser Cys Gln Leu Pro Cys Gly Gln Lys Leu Leu Cys Gly Gln		
305	310	315
His Lys Cys Glu Asn Pro Cys His Ala Gly Ser Cys Gln Pro Cys Pro		320
325	330	335
Arg Val Ser Arg Gln Lys Cys Val Cys Gly Lys Lys Val Ala Glu Arg		
340	345	350

Ser Cys Ala Ser Pro Leu Trp His Cys Asp Gln Val Cys Gly Lys Thr
 355 360 365
 Leu Pro Cys Gly Asn His Thr Cys Glu Gln Val Cys His Val Gly Ala
 370 375 380
 Cys Gly Glu Cys Pro Arg Ser Gly Lys Arg Phe Cys Pro Cys Gln Lys
 385 390 395 400
 Ser Lys Phe Ser Leu Pro Cys Thr Glu Asp Val Pro Thr Cys Gly Asp
 405 410 415
 Ser Cys Asp Lys Val Leu Glu Cys Gly Ile His Arg Cys Ser Gln Arg
 420 425 430
 Cys His Arg Gly Pro Cys Glu Thr Cys Arg Gln Glu Val Glu Lys His
 435 440 445
 Cys Arg Cys Gly Lys His Thr Lys Arg Met Pro Cys His Lys Pro Tyr
 450 455 460
 Leu Cys Glu Thr Lys Cys Val Lys Met Arg Asp Cys Gln Lys His Gln
 465 470 475 480
 Cys Arg Arg Lys Cys Cys Pro Gly Asn Cys Pro Pro Cys Asp Gln Asn
 485 490 495
 Cys Gly Arg Thr Leu Gly Cys Arg Asn His Lys Cys Pro Ser Val Cys
 500 505 510
 His Arg Gly Ser Cys Tyr Pro Cys Pro Glu Thr Val Asp Val Lys Cys
 515 520 525
 Asn Cys Gly Asn Thr Lys Val Thr Val Pro Cys Gly Arg Glu Arg Thr
 530 535 540
 Thr Arg Pro Pro Lys Cys Lys Glu Gln Cys Ser Arg Pro Pro Thr Cys
 545 550 555 560
 His His Thr Ser Gln Glu Lys His Arg Cys His Phe Gly Ser Cys Pro
 565 570 575
 Pro Cys His Gln Pro Cys Gln Lys Val Leu Glu Lys Cys Gly His Leu

580	585	590
Cys Pro Ala Pro Cys His Asp Gln Ala Leu Ile Lys Gln Thr Gly Arg		
595	600	605
His Gln Pro Thr Gly Pro Trp Glu Gln Pro Ser Glu Pro Ala Phe Ile		
610	615	620
Gln Thr Ala Leu Pro Cys Pro Pro Cys Gln Val Pro Ile Pro Met Glu		
625	630	635
Cys Leu Gly Lys His Glu Val Ser Pro Leu Pro Cys His Ala Val Gly		
645	650	655
Pro Tyr Ser Cys Lys Arg Val Cys Gly Arg Ile Leu Asp Cys Gln Asn		
660	665	670
His Thr Cys Met Lys Glu Cys His Lys Val Thr Lys Thr Asp Gly Cys		
675	680	685
Thr Gly Lys Asn Lys Ala Gly Pro Glu Cys Leu His Cys Glu Glu Gly		
690	695	700
Cys Ser Lys Ser Arg Pro Leu Gly Cys Leu His Pro Cys Ile Leu Arg		
705	710	715
Cys His Pro Gly Glu Cys Pro Pro Cys Val Gln Met Leu Arg Ile Lys		
725	730	735
Cys His Cys Lys Ile Thr Ser Leu Tyr Val Glu Cys Arg Lys Ile Thr		
740	745	750
Thr Ala Asp Val Asn Glu Lys Asn Leu Leu Ser Cys Cys Lys Asn Gln		
755	760	765
Cys Pro Lys Glu Leu Pro Cys Gly His Arg Cys Lys Glu Met Cys His		
770	775	780
Pro Gly Glu Cys Pro Phe Asn Cys Asn Gln Lys Val Lys Leu Arg Cys		
785	790	795
Pro Cys Lys Arg Ile Lys Lys Glu Leu Gln Cys Asn Lys Val Arg Glu		
805	810	815

Asn Gln Val Ser Ile Glu Cys Asp Thr Thr Cys Lys Glu Met Lys Arg
 820 825 830
 Lys Ala Ser Glu Ile Lys Glu Ala Glu Ala Lys Ala Ala Leu Glu Glu
 835 840 845
 Glu Lys Arg Arg Gln Gln Ala Glu Leu Glu Ala Phe Glu Asn Arg Leu
 850 855 860
 Lys Thr Asn His Ile Gly His Thr Gly Tyr Leu Asn Thr Val Thr Val
 865 870 875 880
 Ser Pro Asp Gly Ser Leu Cys Ala Ser Gly Gly Lys Asp Gly Gln Ala
 885 890 895
 Met Leu Trp Asp Leu Asn Glu Gly Lys His Leu Tyr Thr Leu Asp Gly
 900 905 910
 Gly Asp Ile Ile Asn Ala Leu Cys Phe Ser Pro Asn Arg Tyr Trp Leu
 915 920 925
 Cys Ala Ala Thr Gly Pro Ser Ile Lys Ile Trp Asp Leu Glu Gly Lys
 930 935 940
 Ile Ile Val Asp Glu Leu Lys Gln Glu Val Ile Ser Thr Ser Ser Lys
 945 950 955 960
 Ala Glu Pro Pro Gln Cys Thr Ser Leu Ala Trp Ser Ala Asp Gly Gln
 965 970 975
 Thr Leu Phe Ala Gly Tyr Thr Asp Asn Leu Val Arg Val Trp Gln Val
 980 985 990
 Thr Ile Gly Thr Arg
 995

<210> 464

<211> 709

<212> PRT

<213> Homo sapiens

<400> 464

Met Lys Arg Cys Arg Ser Asp Glu Leu Gln Gln Gln Gln Gly Glu Glu
 1 5 10 15

Asp Gly Ala Gly Leu Glu Asp Ala Ala Ser His Leu Pro Gly Ala Asp
 20 25 30

Leu Arg Pro Gly Glu Thr Thr Gly Ala Asn Ser Ala Gly Gly Pro Thr
 35 40 45

Ser Asp Ala Gly Ala Ala Ala Ala Pro Asn Pro Gly Pro Arg Ser Lys
 50 55 60

Pro Pro Asp Leu Lys Lys Ile Gln Gln Leu Ser Glu Gly Ser Met Phe
 65 70 75 80

Gly His Gly Leu Lys His Leu Phe His Ser Arg Arg Arg Ser Arg Glu
 85 90 95

Arg Glu His Gln Thr Ser Gln Asp Ser Gln Gln His Gln Gln Gln
 100 105 110

Gly Met Ser Asp His Asp Ser Pro Asp Glu Lys Glu Arg Ser Pro Glu
 115 120 125

Met His Arg Val Ser Tyr Ala Met Ser Leu His Asp Leu Pro Ala Arg
 130 135 140

Pro Thr Ala Phe Asn Arg Val Leu Gln Gln Ile Arg Ser Arg Pro Ser
 145 150 155 160

Ile Lys Arg Gly Ala Ser Leu His Ser Ser Ser Gly Gly Ser Ser
 165 170 175

Gly Ser Ser Ser Arg Arg Thr Lys Ser Ser Ser Leu Glu Pro Gln Arg
 180 185 190

Gly Ser Pro His Leu Leu Arg Lys Ala Pro Gln Asp Ser Ser Leu Ala
 195 200 205

Ala Ile Leu His Gln His Gln Cys Arg Pro Arg Ser Ser Ser Thr Thr
 210 215 220
 Asp Thr Ala Leu Leu Leu Ala Asp Gly Ser Asn Val Tyr Leu Leu Ala
 225 230 235 240
 Glu Glu Ala Glu Gly Ile Gly Asp Lys Val Asp Lys Gly Asp Leu Val
 245 250 255
 Ala Leu Ser Leu Pro Ala Gly His Gly Asp Thr Asp Gly Pro Ile Ser
 260 265 270
 Leu Asp Val Pro Asp Gly Ala Pro Asp Pro Gln Arg Thr Lys Ala Ala
 275 280 285
 Ile Asp His Leu His Gln Lys Ile Leu Lys Ile Thr Glu Gln Ile Lys
 290 295 300
 Ile Glu Gln Glu Ala Arg Asp Asp Asn Val Ala Glu Tyr Leu Lys Leu
 305 310 315 320
 Ala Asn Asn Ala Asp Lys Gln Gln Val Ser Arg Ile Lys Gln Val Phe
 325 330 335
 Glu Lys Lys Asn Gln Lys Ser Ala Gln Thr Ile Ala Gln Leu His Lys
 340 345 350
 Lys Leu Glu His Tyr Arg Arg Leu Lys Glu Ile Glu Gln Asn Gly
 355 360 365
 Pro Ser Arg Gln Pro Lys Asp Val Leu Arg Asp Met Gln Gln Gly Leu
 370 375 380
 Lys Asp Val Gly Ala Asn Val Arg Ala Gly Ile Ser Gly Phe Gly Gly
 385 390 395 400
 Gly Val Val Glu Gly Val Lys Gly Ser Leu Ser Gly Leu Ser Gln Ala
 405 410 415
 Thr His Thr Ala Val Val Ser Lys Pro Arg Glu Phe Ala Ser Leu Ile
 420 425 430
 Arg Asn Lys Phe Gly Ser Ala Asp Asn Ile Ala His Leu Lys Asp Pro

435	440	445
Leu Glu Asp Gly Pro Pro Glu Glu Ala Ala Arg Ala Leu Ser Gly Ser		
450	455	460
Ala Thr Leu Val Ser Ser Pro Lys Tyr Gly Ser Asp Asp Glu Cys Ser		
465	470	475
Ser Ala Ser Ala Ser Ser Ala Gly Ala Gly Ser Asn Ser Gly Ala Gly		
485	490	495
Pro Gly Gly Ala Leu Gly Ser Pro Lys Ser Asn Ala Leu Tyr Gly Ala		
500	505	510
Pro Gly Asn Leu Asp Ala Leu Leu Glu Glu Leu Arg Glu Ile Lys Glu		
515	520	525
Gly Gln Ser His Leu Glu Asp Ser Met Glu Asp Leu Lys Thr Gln Leu		
530	535	540
Gln Arg Asp Tyr Thr Tyr Met Thr Gln Cys Leu Gln Glu Glu Arg Tyr		
545	550	555
Arg Tyr Glu Arg Leu Glu Glu Gln Leu Asn Asp Leu Thr Glu Leu His		
565	570	575
Gln Asn Glu Met Thr Asn Leu Lys Gln Glu Leu Ala Ser Met Glu Glu		
580	585	590
Lys Val Ala Tyr Gln Ser Tyr Glu Arg Ala Arg Asp Ile Gln Glu Ala		
595	600	605
Val Glu Ser Cys Leu Thr Arg Val Thr Lys Leu Glu Leu Gln Gln Gln		
610	615	620
Gln Gln Gln Val Val Gln Leu Glu Gly Val Glu Asn Ala Asn Ala Arg		
625	630	635
Ala Leu Leu Gly Lys Phe Ile Asn Val Ile Leu Ala Leu Met Ala Val		
645	650	655
Leu Leu Val Phe Val Ser Thr Ile Ala Asn Phe Ile Thr Pro Leu Met		
660	665	670

Lys Thr Arg Leu Arg Ile Thr Ser Thr Thr Leu Leu Val Leu Val Leu
 675 680 685
 Phe Leu Leu Trp Lys His Trp Asp Ser Leu Thr Tyr Leu Leu Glu His
 690 695 700
 Val Leu Leu Pro Ser
 705

<210> 465

<211> 335

<212> PRT

<213> Homo sapiens

<400> 465

Met Gln Arg His Val Met Val Ala Asn Pro Ser Val Leu Cys Ser His
 1 5 10 15

Phe Asn Gln Asp Leu Trp Pro Glu Gln Ser Ile Lys Asp Ser Phe Gln
 20 25 30

Lys Leu Ile Leu Arg Arg His Lys Lys Cys Gly His Asp Asn Leu Gln
 35 40 45

Leu Lys Lys Gly Cys Glu Ser Val Asp Lys Cys Lys Val His Lys Arg
 50 55 60

Gly Tyr Asn Gly Leu Asn Gln Cys Leu Thr Thr Gln Ser Lys Met
 65 70 75 80

Phe Gln Cys Asp Lys His Gly Lys Val Phe His Gln Phe Ser Asn Thr
 85 90 95

Asn Arg His Lys Ile Arg His Thr Gly Lys Asn Pro Cys Lys Phe Thr
 100 105 110

Glu Cys Gly Lys Ala Phe Asn Arg Ser Ser Thr Phe Thr Thr His Lys

115	120	125
Lys Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Ile Glu Cys Gly Lys		
130	135	140
Ala Phe Asn Arg Ser Ser His Leu Thr Thr His Lys Ile Ile His Thr		
145	150	155
Gly Glu Lys Arg Tyr Lys Cys Glu Asp Cys Gly Lys Ala Phe Asn Arg		160
165	170	175
Ser Ser Asn Leu Thr Thr His Lys Lys Ile His Thr Gly Glu Lys Pro		
180	185	190
Tyr Lys Cys Glu Glu Cys Gly Lys Ala Phe Lys Arg Ser Ser Ile Leu		
195	200	205
Thr Thr His Lys Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Glu		
210	215	220
Glu Cys Gly Lys Val Phe Lys Tyr Leu Ser Ser Leu Ser Thr His Lys		
225	230	235
Ile Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys Gly Lys		240
245	250	255
Ala Phe Asn Trp Ser Ser His Leu Thr Thr His Lys Arg Ile His Thr		
260	265	270
Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys Gly Lys Gly Phe Lys Tyr		
275	280	285
Ser Ser Thr Leu Thr Lys His Lys Ile Ile His Thr Gly Glu Lys Pro		
290	295	300
Tyr Lys Cys Glu Glu Cys Arg Ser Leu Arg Ser Gln Cys Asp Gln Leu		
305	310	315
Glu Glu Arg Val Ser Val Met Glu Asp Glu Met Asn Gly Met Lys		320
325	330	335

<210> 466

<211> 505

<212> PRT

<213> Homo sapiens

<400> 466

Met Lys Ala Gln Arg Glu Arg Leu Gln Ile Pro Gly Leu Thr Leu Asp

1 5 10 15

Leu Thr Pro Arg Ser Leu Ser Pro Thr Pro Ser Ser Pro Gly Ser Pro

20 25 30

Cys Ser Pro Leu Leu Ala Phe His Phe Trp Ser Cys Arg Thr Ser Asn

35 40 45

Arg Lys Ser Leu Ile Gly Asn Gly Gln Ser Pro Ala Leu Pro Arg Pro

50 55 60

His Ser Pro Leu Ser Ala His Ala Gly Asn Ser Pro Gln Asp Ser Pro

65 70 75 80

Arg Asn Phe Ser Pro Ser Ala Ser Ala His Phe Ser Phe Ala Arg Arg

85 90 95

Asn Asp Arg Thr Asp Gly Arg Arg Trp Ser Leu Ala Ser Leu Pro Ser

100 105 110

Ser Gly Tyr Gly Thr Asn Thr Pro Ser Ser Thr Val Ser Ser Ser Cys

115 120 125

Ser Ser Gln Glu Lys Leu His Gln Leu Pro Tyr Gln Pro Thr Pro Asp

130 135 140

Glu Leu His Phe Leu Ser Lys His Phe Cys Thr Thr Glu Ser Ile Ala

145 150 155 160

Thr Glu Asn Arg Cys Arg Asn Thr Pro Met His Pro Arg Ser Arg Ser

165 170 175

Leu Ser Pro Gly Arg Ser Pro Ala Cys Cys Asp His Glu Ile Ile Met

180	185	190
Met Asn His Val Tyr Lys Glu Arg Phe Pro Lys Ala Thr Ala Gln Met		
195	200	205
Glu Glu Arg Leu Lys Glu Ile Ile Thr Ser Tyr Ser Pro Asp Asn Val		
210	215	220
Leu Pro Leu Ala Asp Gly Val Leu Ser Phe Thr His His Gln Ile Ile		
225	230	235
Glu Leu Ala Arg Asp Cys Leu Asp Lys Ser His Gln Gly Leu Ile Thr		
245	250	255
Ser Arg Tyr Phe Leu Glu Leu Gln His Lys Leu Asp Lys Leu Leu Gln		
260	265	270
Glu Ala His Asp Arg Ser Glu Ser Gly Glu Leu Ala Phe Ile Lys Gln		
275	280	285
Leu Val Arg Lys Ile Leu Ile Val Ile Ala Arg Pro Ala Arg Leu Leu		
290	295	300
Glu Cys Leu Glu Phe Asp Pro Glu Glu Phe Tyr Tyr Leu Leu Glu Ala		
305	310	315
Ala Glu Gly His Ala Lys Glu Gly Gln Gly Ile Lys Thr Asp Ile Pro		
325	330	335
Arg Tyr Ile Ile Ser Gln Leu Gly Leu Asn Lys Asp Pro Leu Glu Glu		
340	345	350
Met Ala His Leu Gly Asn Tyr Asp Ser Gly Thr Ala Glu Thr Pro Glu		
355	360	365
Thr Asp Glu Ser Val Ser Ser Asn Ala Ser Leu Lys Leu Arg Arg		
370	375	380
Lys Pro Arg Glu Ser Asp Phe Glu Thr Ile Lys Leu Ile Ser Asn Gly		
385	390	395
Ala Tyr Gly Ala Val Tyr Phe Val Arg His Lys Glu Ser Arg Gln Arg		
405	410	415

Phe Ala Met Lys Lys Ile Asn Lys Gln Asn Leu Ile Leu Arg Asn Gln
 420 425 430
 Ile Gln Gln Ala Phe Val Glu Arg Asp Ile Leu Thr Phe Ala Glu Asn
 435 440 445
 Pro Phe Val Val Ser Met Tyr Cys Ser Phe Glu Thr Arg Arg His Leu
 450 455 460
 Cys Met Val Met Glu Tyr Val Glu Gly Gly Asp Cys Ala Thr Leu Met
 465 470 475 480
 Lys Asn Thr Gly Pro Leu Pro Val Asp Met Ala Arg Met Tyr Phe Ala
 485 490 495
 Glu Thr Val Leu Ala Leu Glu Phe Thr
 500 505

<210> 467

<211> 408

<212> PRT

<213> Homo sapiens

<400> 467

Met Arg Glu Lys Ser Phe Gln Cys Asn Glu Ser Gly Lys Ala Phe Asn
 1 5 10 15
 Tyr Ser Ser Leu Leu Arg Lys His Gln Ile Ile His Leu Gly Glu Lys
 20 25 30
 Gln Tyr Lys Cys Asp Val Cys Gly Lys Val Phe Asn Arg Lys Arg Asn
 35 40 45
 Leu Val Cys His Arg Arg Cys His Thr Gly Glu Lys Pro Tyr Arg Cys
 50 55 60
 Asn Glu Cys Gly Lys Thr Phe Ser Gln Thr Tyr Ser Leu Thr Cys His

65	70	75	80
Arg Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys Asp			
85	90	95	
Lys Ala Phe Ser Phe Lys Ser Asn Leu Lys Arg His Arg Arg Ile His			
100	105	110	
Ala Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Thr Phe Ser			
115	120	125	
Gln Thr Ser Ser Leu Thr Cys His Arg Arg Leu His Thr Gly Glu Lys			
130	135	140	
Pro Phe Lys Cys Asn Glu Cys Gly Lys Thr Phe Ser Arg Lys Ser Ser			
145	150	155	160
Leu Thr Cys His His Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Cys			
165	170	175	
Asn Glu Cys Gly Lys Thr Phe Ser Gln Glu Leu Thr Leu Lys Cys His			
180	185	190	
Arg Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly			
195	200	205	
Lys Val Phe Asn Lys Lys Ala Asn Leu Ala Arg His His Arg Leu His			
210	215	220	
Ser Gly Glu Lys Pro Tyr Lys Cys Thr Glu Cys Val Lys Thr Phe Ser			
225	230	235	240
Arg Asn Ser Ala Leu Val Ile His Lys Ala Ile His Ile Gly Glu Lys			
245	250	255	
Arg Tyr Lys Cys Asn Glu Cys Gly Lys Thr Phe Ser Arg Ile Ser Ala			
260	265	270	
Leu Val Ile His Thr Ala Ile His Thr Gly Glu Lys Pro Tyr Lys Cys			
275	280	285	
Asn Glu Cys Gly Lys Gly Phe Asn Arg Lys Thr His Leu Ala Cys His			
290	295	300	

His Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly
 305 310 315 320
 Lys Val Phe Asn Arg Lys Thr His Leu Ala His His His Arg Leu His
 325 330 335
 Thr Gly Asp Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Asn
 340 345 350
 Gln Lys Ala His Leu Ala Arg His His Arg Leu His Thr Gly Glu Lys
 355 360 365
 Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Asn Gln Lys Ala Asn
 370 375 380
 Leu Ala Arg His His Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Phe
 385 390 395 400
 Asn Glu Cys Gly Lys Ala Phe Asn
 405

<210> 468

<211> 596

<212> PRT

<213> Homo sapiens

<400> 468

Met Leu Pro Ser Gln Ala Gln Gly Leu Leu Trp Trp Val Phe Pro Leu
 1 5 10 15
 Phe Pro Ala Ser Ser Leu Ser Tyr Pro Pro Val Ser Tyr Arg Ala Asp
 20 25 30
 Gly Leu Ala Arg Asn Thr Phe Leu Lys Ala Cys Ser Glu Ser Ser Ser
 35 40 45
 Ser Ser Asn Ile Ser Thr Met Leu Val Thr His Asp Tyr Thr Ala Val

50	55	60
Lys Glu Asp Glu Ile Asn Val Tyr Gln Gly Glu Val Val Gln Ile Leu		
65	70	75
Ala Ser Asn Gln Gln Asn Met Phe Leu Val Phe Arg Ala Ala Thr Asp		80
85	90	95
Gln Cys Pro Ala Ala Glu Gly Trp Ile Pro Gly Phe Val Leu Gly His		
100	105	110
Thr Ser Ala Val Ile Val Glu Asn Pro Asp Gly Thr Leu Lys Lys Ser		
115	120	125
Thr Ser Trp His Thr Ala Leu Arg Leu Arg Lys Lys Ser Glu Lys Lys		
130	135	140
Asp Lys Asp Gly Lys Arg Glu Gly Lys Leu Glu Asn Gly Tyr Arg Lys		
145	150	155
Ser Arg Glu Gly Leu Ser Asn Lys Val Ser Val Lys Leu Leu Asn Pro		160
165	170	175
Asn Tyr Ile Tyr Asp Val Pro Pro Glu Phe Val Ile Pro Leu Ser Glu		
180	185	190
Val Thr Cys Glu Thr Gly Glu Thr Val Val Leu Arg Cys Arg Val Cys		
195	200	205
Gly Arg Pro Lys Ala Ser Ile Thr Trp Lys Gly Pro Glu His Asn Thr		
210	215	220
Leu Asn Asn Asp Gly His Tyr Ser Ile Ser Tyr Ser Asp Leu Gly Glu		
225	230	235
Ala Thr Leu Lys Ile Val Gly Val Thr Thr Glu Asp Asp Gly Ile Tyr		240
245	250	255
Thr Cys Ile Ala Val Asn Asp Met Gly Ser Ala Ser Ser Ser Ala Ser		
260	265	270
Leu Arg Val Leu Gly Pro Gly Met Asp Gly Ile Met Val Thr Trp Lys		
275	280	285

Asp Asn Phe Asp Ser Phe Tyr Ser Glu Val Ala Glu Leu Gly Arg Gly
 290 295 300
 Arg Phe Ser Val Val Lys Lys Cys Asp Gln Lys Gly Thr Lys Arg Ala
 305 310 315 320
 Val Ala Thr Lys Phe Val Asn Lys Lys Leu Met Lys Arg Asp Gln Val
 325 330 335
 Thr His Glu Leu Gly Ile Leu Gln Ser Leu Gln His Pro Leu Leu Val
 340 345 350
 Gly Leu Leu Asp Thr Phe Glu Thr Pro Thr Ser Tyr Ile Leu Val Leu
 355 360 365
 Glu Met Ala Asp Gln Gly Arg Leu Leu Asp Cys Val Val Arg Trp Gly
 370 375 380
 Ser Leu Thr Glu Gly Lys Ile Arg Ala His Leu Gly Glu Val Leu Glu
 385 390 395 400
 Ala Val Arg Tyr Leu His Asn Cys Arg Ile Ala His Leu Asp Leu Lys
 405 410 415
 Pro Glu Asn Ile Leu Val Asp Glu Ser Leu Ala Lys Pro Thr Ile Lys
 420 425 430
 Leu Ala Asp Phe Gly Asp Ala Val Gln Leu Asn Thr Thr Tyr Tyr Ile
 435 440 445
 His Gln Leu Leu Gly Asn Pro Glu Phe Ala Ala Pro Glu Ile Ile Leu
 450 455 460
 Gly Asn Pro Val Ser Leu Thr Ser Asp Thr Trp Ser Val Gly Val Leu
 465 470 475 480
 Thr Tyr Val Leu Leu Ser Gly Val Ser Pro Phe Leu Asp Asp Ser Val
 485 490 495
 Glu Glu Thr Cys Leu Asn Ile Cys Arg Leu Asp Phe Ser Phe Pro Asp
 500 505 510
 Asp Tyr Phe Lys Gly Val Ser Gln Lys Ala Lys Glu Phe Val Cys Phe

515	520	525
Leu Leu Gln Glu Asp Pro Ala Lys Arg Pro Ser Ala Ala Leu Ala Leu		
530	535	540
Gln Glu Gln Trp Leu Gln Ala Gly Asn Gly Arg Ser Thr Gly Val Leu		
545	550	555
Asp Thr Ser Arg Leu Thr Ser Phe Ile Glu Arg Arg Lys His Gln Asn		
565	570	575
Asp Val Arg Pro Ile Arg Ser Ile Lys Asn Phe Leu Gln Ser Arg Leu		
580	585	590
Leu Pro Arg Val		
595		

<210> 469

<211> 569

<212> PRT

<213> Homo sapiens

<400> 469

Met Pro Ser Ser Leu Phe Ala Asp Leu Glu Arg Asn Gly Ser Gly Gly			
1	5	10	15
Gly Gly Gly Gly Ser Ser Gly Gly Glu Thr Leu Asp Asp Gln Arg			
20	25	30	
Ala Leu Gln Leu Ala Leu Asp Gln Leu Ser Leu Leu Gly Leu Asp Ser			
35	40	45	
Asp Glu Gly Ala Ser Leu Tyr Asp Ser Glu Pro Arg Lys Lys Ser Val			
50	55	60	
Asn Met Thr Glu Cys Val Pro Val Pro Ser Ser Glu His Val Ala Glu			
65	70	75	80

Ile Val Gly Arg Gln Gly Cys Lys Ile Lys Ala Leu Arg Ala Lys Thr
 85 90 95
 Asn Thr Tyr Ile Lys Thr Pro Val Arg Gly Glu Glu Pro Val Phe Val
 100 105 110
 Val Thr Gly Arg Lys Glu Asp Val Ala Met Ala Arg Arg Glu Ile Ile
 115 120 125
 Ser Ala Ala Glu His Phe Ser Met Ile Arg Ala Ser Arg Asn Lys Asn
 130 135 140
 Thr Ala Leu Asn Gly Ala Val Pro Gly Pro Pro Asn Leu Pro Gly Gln
 145 150 155 160
 Thr Thr Ile Gln Val Arg Val Pro Tyr Arg Val Val Gly Leu Val Val
 165 170 175
 Gly Pro Lys Gly Ala Thr Ile Lys Arg Ile Gln Gln Gln Thr His Thr
 180 185 190
 Tyr Ile Val Thr Pro Ser Arg Asp Lys Glu Pro Val Phe Glu Val Thr
 195 200 205
 Gly Met Pro Glu Asn Val Asp Arg Ala Arg Glu Glu Ile Glu Ala His
 210 215 220
 Ile Ala Leu Arg Thr Gly Gly Ile Ile Glu Leu Thr Asp Glu Asn Asp
 225 230 235 240
 Phe His Ala Asn Gly Thr Asp Val Gly Phe Asp Leu His His Gly Ser
 245 250 255
 Gly Gly Ser Gly Pro Gly Ser Leu Trp Ser Lys Pro Thr Pro Ser Ile
 260 265 270
 Thr Pro Thr Pro Gly Arg Lys Pro Phe Ser Ser Tyr Arg Asn Asp Ser
 275 280 285
 Ser Ser Ser Leu Gly Ser Ala Ser Thr Asp Ser Tyr Phe Gly Gly Gly
 290 295 300
 Thr Ser Ser Ser Ala Ala Ala Thr Gln Arg Leu Ala Asp Tyr Ser Pro

305	310	315	320
Pro Ser Pro Ala Leu Ser Phe Ala His Asn Gly Asn Asn Asn Asn			
325	330	335	
Gly Asn Gly Tyr Thr Tyr Thr Ala Gly Gly Glu Ala Ser Val Pro Ser			
340	345	350	
Pro Asp Gly Cys Pro Glu Leu Gln Pro Thr Phe Asp Pro Ala Pro Ala			
355	360	365	
Pro Pro Pro Gly Ala Pro Leu Ile Trp Ala Gln Phe Glu Arg Ser Pro			
370	375	380	
Gly Gly Gly Pro Ala Ala Pro Val Ser Ser Ser Cys Ser Ser Ser Ala			
385	390	395	400
Ser Ser Ser Ala Ser Ser Ser Val Val Phe Pro Gly Gly Ala			
405	410	415	
Ser Ala Pro Ser Asn Ala Asn Leu Gly Leu Leu Val His Arg Arg Leu			
420	425	430	
His Pro Gly Thr Ser Cys Pro Arg Leu Ser Pro Pro Leu His Met Ala			
435	440	445	
Pro Gly Ala Gly Glu His His Leu Ala Arg Arg Val Arg Ser Asp Pro			
450	455	460	
Gly Gly Gly Leu Ala Tyr Ala Ala Tyr Ala Asn Gly Leu Gly Ala			
465	470	475	480
Gln Leu Pro Gly Leu Gln Pro Ser Asp Thr Ser Gly Ser Ser Ser Ser			
485	490	495	
Ser Gly Leu Arg Arg			
500	505	510	
Lys Gly Ser Arg Asp Cys Ser Val Cys Phe Glu Ser Glu Val Ile Ala			
515	520	525	
Ala Leu Val Pro Cys Gly His Asn Leu Phe Cys Met Glu Cys Ala Asn			
530	535	540	

Arg Ile Cys Glu Lys Ser Glu Pro Glu Cys Pro Val Cys His Thr Ala
 545 550 555 560
 Val Thr Gln Ala Ile Arg Ile Phe Ser
 565

<210> 470

<211> 302

<212> PRT

<213> Homo sapiens

<400> 470

Met Ala Leu Leu Ile Thr Pro Ala Gly Val Ala Thr Val Asn Arg His
 1 5 10 15
 Ser Thr Ile Pro Ser Asp Thr His Thr Ser Arg Glu Lys Pro Arg Phe
 20 25 30
 His Lys Pro Cys Arg Asn Asp Leu Glu Ser Leu Leu Ser Glu Gly Arg
 35 40 45
 Leu Asp Thr Ser Val Gln Thr Pro Cys Pro Gln His Pro His Thr Gln
 50 55 60
 Leu Ser Cys Glu Pro Gln Pro Leu Glu His Ser Ser Cys Leu Ser Thr
 65 70 75 80
 Cys Leu Ala Gly Cys Phe Leu Pro Val Pro Ser Ser Pro His Thr His
 85 90 95
 Pro Leu Leu Pro Gly Ser Arg Trp Leu Pro Pro Pro Leu Ala Leu Leu
 100 105 110
 Met Gly Thr Leu Ser Pro Gly Leu Ala Val Lys Pro Ser Trp Val Pro
 115 120 125
 Arg Phe Pro Leu Leu Ala Arg Gln Ser Pro Ala Thr Ser Val Gly Met

130	135	140
Pro Leu Ser Ala Ala Thr Gln Pro Gly Ser Val Gly Arg Leu His Phe		
145	150	155
Pro Lys Leu Arg Ser Ser Ser Pro Phe Ser Gly His Ser Asp Glu Asn		
165	170	175
Lys Ala Thr Gly Gln Gly Arg Glu Asn Arg Asp Gln Pro Gln Arg Pro		
180	185	190
Ser His Leu Cys Glu Cys Pro Glu Ala Ala Lys Gln Ser Ala Thr Asn		
195	200	205
Gly Val Ala Glu Thr Asn Arg Ser Val Phe Pro Leu Gly Ser Glu Ala		
210	215	220
Arg Ser Leu Ser Leu Arg Arg Gln Glu Ser Gln Pro His Ser Gly Ser		
225	230	235
Ser Arg Arg Glu Ser Val Ser Cys Ser Pro Ser Phe Trp Cys Cys Trp		
245	250	255
Gln Pro Leu Ala Phe Leu Thr Cys Gly Cys Ala Ala Pro Ile Ser Val		
260	265	270
Pro Gly Val Thr Arg Pro Ser Pro Arg Pro Cys Cys Val Ser Pro Pro		
275	280	285
Leu Val Arg Leu Gln Ser Leu Gly Leu Gly Pro Thr Gln Ile		
290	295	300

<210> 471

<211> 449

<212> PRT

<213> Homo sapiens

<400> 471

Met Pro Gly Met Met Glu Lys Gly Pro Glu Leu Leu Gly Lys Asn Arg
 1 5 10 15
 Ser Ala Asn Gly Ser Ala Lys Ser Pro Ala Gly Gly Gly Ser Gly
 20 25 30
 Ala Ser Ser Thr Asn Gly Gly Leu His Tyr Ser Glu Pro Glu Ser Gly
 35 40 45
 Cys Ser Ser Asp Asp Glu His Asp Val Gly Met Arg Val Gly Ala Glu
 50 55 60
 Tyr Gln Ala Arg Ile Pro Glu Phe Asp Pro Gly Ala Thr Lys Tyr Thr
 65 70 75 80
 Asp Lys Asp Asn Gly Gly Met Leu Val Trp Ser Pro Tyr His Ser Ile
 85 90 95
 Pro Asp Ala Lys Leu Asp Glu Tyr Ile Ala Ile Ala Lys Glu Lys His
 100 105 110
 Gly Tyr Asn Val Glu Gln Ala Leu Gly Met Leu Phe Trp His Lys His
 115 120 125
 Asn Ile Glu Lys Ser Leu Ala Asp Leu Pro Asn Phe Thr Pro Phe Pro
 130 135 140
 Asp Glu Trp Thr Val Glu Asp Lys Val Leu Phe Glu Gln Ala Phe Ser
 145 150 155 160
 Phe His Gly Lys Ser Phe His Arg Ile Gln Gln Met Leu Pro Asp Lys
 165 170 175
 Thr Ile Ala Ser Leu Val Lys Tyr Tyr Ser Trp Lys Lys Thr Arg
 180 185 190
 Ser Arg Thr Ser Leu Met Asp Arg Gln Ala Arg Lys Leu Ala Asn Arg
 195 200 205
 His Asn Gln Gly Asp Ser Asp Asp Val Glu Glu Thr His Pro Met
 210 215 220
 Asp Gly Asn Asp Ser Asp Tyr Asp Pro Lys Lys Glu Ala Lys Lys Glu

225	230	235	240
Gly Asn Thr Glu Gln Pro Val Gln Thr Ser Lys Ile Gly Leu Gly Arg			
245	250	255	
Arg Glu Tyr Gln Ser Leu Gln His Arg His His Ser Gln Arg Ser Lys			
260	265	270	
Cys Arg Pro Pro Lys Gly Met Tyr Leu Thr Gln Glu Asp Val Val Ala			
275	280	285	
Val Ser Cys Ser Pro Asn Ala Ala Asn Thr Ile Leu Arg Gln Leu Asp			
290	295	300	
Met Glu Leu Ile Ser Leu Lys Arg Gln Val Gln Asn Ala Lys Gln Val			
305	310	315	320
Asn Ser Ala Leu Lys Gln Lys Met Glu Gly Gly Ile Glu Glu Phe Lys			
325	330	335	
Pro Pro Glu Ser Asn Gln Lys Ile Asn Ala Arg Trp Thr Thr Glu Glu			
340	345	350	
Gln Leu Leu Ala Val Gln Gly Val Arg Lys Tyr Gly Lys Asp Phe Gln			
355	360	365	
Ala Ile Ala Asp Val Ile Gly Asn Lys Thr Val Gly Gln Val Lys Asn			
370	375	380	
Phe Phe Val Asn Tyr Arg Arg Arg Phe Asn Leu Glu Glu Val Leu Gln			
385	390	395	400
Glu Trp Glu Ala Glu Gln Gly Thr Gln Ala Ser Asn Gly Asp Ala Ser			
405	410	415	
Thr Leu Gly Glu Glu Thr Lys Ser Ala Ser Asn Val Pro Ser Gly Lys			
420	425	430	
Ser Thr Asp Glu Glu Glu Val Cys Leu Cys Met Glu Phe Glu Leu			
435	440	445	
Ile			

<210> 472

<211> 244

<212> PRT

<213> Homo sapiens

<400> 472

Met	Thr	Gly	Ser	Asn	Ser	His	Ile	Thr	Ile	Leu	Thr	Val	Asn	Ile	Asn
1															
Gly	Leu	Asn	Ala	Pro	Ile	Lys	Gly	His	Arg	Leu	Ala	Asn	Trp	Ile	Lys
Ser	Gln	Asp	Pro	Ser	Val	Cys	Cys	Ile	Gln	Glu	Thr	His	Leu	Met	Arg
35															
Lys	Phe	Thr	His	Arg	Phe	Asn	Ile	Lys	Gly	Trp	Arg	Lys	Ile	Tyr	Gln
50															
Glu	Asn	Gly	Lys	Gln	Lys	Lys	Ala	Gly	Val	Ala	Ile	Leu	Val	Ser	Asp
65															
Lys	Thr	Asp	Phe	Lys	Pro	Thr	Lys	Ile	Lys	Gly	Asp	Lys	Gly	His	Tyr
85															
Ile	Met	Val	Lys	Gly	Ser	Met	Gln	Gln	Glu	Glu	Leu	Thr	Ile	Leu	Asn
100															
Ile	Tyr	Ala	Pro	Asn	Thr	Arg	Ala	Pro	Arg	Phe	Ile	Lys	Gln	Val	Leu
115															
Arg	Asp	Leu	Gln	Arg	Asp	Leu	Asp	Ser	His	Thr	Ile	Ile	Met	Gly	Asp
130															
Phe	Asn	Thr	Glu	Leu	Ser	Ile	Leu	Glu	Arg	Ser	Thr	Arg	Gln	Lys	Val
145															
Asn	Lys	Asp	Ile	Gln	Asp	Leu	Asn	Ser	Ala	Leu	Gln	Gln	Thr	Asp	Pro

165	170	175
Ile Asp Ile His Arg Asn Leu His Leu Lys Ser Thr Glu Tyr Thr Leu		
180	185	190
Phe Ser Ala Pro His Ile Thr Tyr Ser Lys Phe Asp His Ile Ile Gly		
195	200	205
Ser Lys Ala Leu Leu Thr Lys Cys Lys Arg Thr Glu Ile Thr Thr Asn		
210	215	220
Cys Leu Leu Asp His Ser Ala Ile Lys Phe Glu Leu Arg Ile Lys Lys		
225	230	235
Leu Thr Gln Asn		

<210> 473
 <211> 695
 <212> PRT
 <213> Homo sapiens

<400> 473			
Met Val Tyr Pro Tyr Pro Gly Ala Arg Ala Glu Glu Lys Leu Gly Gly			
1	5	10	15
Thr Arg Asp Pro Thr Tyr Gln Glu Arg Ala Ala Pro Gln Thr Gln Pro			
20	25	30	
Leu Gly Lys Glu Thr Asp Ser Leu Ser Ala Gly Phe Val Val Val Met			
35	40	45	
Gly Val Asp Leu Ser Arg Cys Gly Pro Asp His Thr Ala Ser Arg Cys			
50	55	60	
Pro Trp Asp Pro Gly Leu Leu Leu Arg Phe Leu Ala Ala Met Ala Ala			
65	70	75	80

Val Gly Ala Leu Glu Pro Leu Leu Pro Gly Pro Leu Leu Ala Val His
 85 90 95
 Pro His Ala Gly Thr Ala Pro Pro Ala Asn Gln Leu Pro Trp Pro Val
 100 105 110
 Leu Cys Ser Pro Val Ala Gly Val Ile Leu Leu Ala Leu Gly Ala Leu
 115 120 125
 Leu Val Leu Gln Leu Ile Arg Arg Arg Arg Glu His Gly Ala Leu
 130 135 140
 Trp Leu Pro Pro Gly Phe Thr Arg Arg Pro Arg Thr Gln Ser Ala Pro
 145 150 155 160
 His Arg Arg Arg Pro Pro Leu Gly Glu Asp Ser Ile Gly Leu Lys Ala
 165 170 175
 Leu Lys Pro Lys Ala Glu Val Asp Glu Asp Gly Val Val Met Cys Ser
 180 185 190
 Gly Pro Glu Glu Gly Glu Ala Glu Glu Thr Gly Pro Pro Ser Thr
 195 200 205
 Cys Gln Leu Trp Ser Leu Ser Gly Gly Cys Gly Ala Leu Pro Gln Ala
 210 215 220
 Ala Met Leu Thr Pro Pro Gln Glu Ser Glu Met Glu Ala Pro Asp Leu
 225 230 235 240
 Asp Thr Arg Gly Pro Asp Gly Val Thr Pro Leu Met Ser Ala Val Cys
 245 250 255
 Cys Gly Glu Val Gln Ser Gly Thr Phe Gln Gly Ala Trp Leu Gly Cys
 260 265 270
 Pro Glu Pro Trp Glu Pro Leu Leu Asp Gly Gly Ala Cys Pro Gln Ala
 275 280 285
 His Thr Val Gly Thr Gly Glu Thr Pro Leu His Leu Ala Ala Arg Phe
 290 295 300
 Ser Arg Pro Thr Ala Ala Arg Arg Leu Leu Glu Ala Gly Ala Asn Pro

305	310	315	320
Asn Gln Pro Asp Arg Ala Gly Arg Thr Pro Leu His Ala Ala Val Ala			
325	330	335	
Ala Asp Ala Arg Glu Val Cys Gln Leu Leu Leu Arg Ser Arg Gln Thr			
340	345	350	
Ala Val Asp Ala Arg Thr Glu Asp Gly Thr Thr Pro Leu Met Leu Ala			
355	360	365	
Ala Arg Leu Ala Val Glu Asp Leu Val Glu Glu Leu Ile Ala Ala Gln			
370	375	380	
Ala Asp Val Gly Ala Arg Asp Lys Trp Gly Lys Thr Ala Leu His Trp			
385	390	395	400
Ala Ala Ala Val Asn Asn Ala Arg Ala Ala Arg Ser Leu Leu Gln Ala			
405	410	415	
Gly Ala Asp Lys Asp Ala Gln Asp Asn Arg Glu Gln Thr Pro Leu Phe			
420	425	430	
Leu Ala Ala Arg Glu Gly Ala Val Glu Val Ala Gln Leu Leu Leu Gly			
435	440	445	
Leu Gly Ala Ala Arg Glu Leu Arg Asp Gln Ala Gly Leu Ala Pro Ala			
450	455	460	
Asp Val Ala His Gln Arg Asn His Trp Asp Leu Leu Thr Leu Leu Glu			
465	470	475	480
Gly Ala Gly Pro Pro Glu Ala Arg His Lys Ala Thr Pro Gly Arg Glu			
485	490	495	
Ala Gly Pro Phe Pro Arg Ala Arg Thr Val Ser Val Ser Val Pro Pro			
500	505	510	
His Gly Gly Gly Ala Leu Pro Arg Cys Arg Thr Leu Ser Ala Gly Ala			
515	520	525	
Gly Pro Arg Gly Gly Ala Cys Leu Gln Ala Arg Thr Trp Ser Val			
530	535	540	

Asp Leu Ala Ala Arg Gly Gly Gly Ala Tyr Ser His Cys Arg Ser Leu
 545 550 555 560
 Ser Gly Val Gly Ala Gly Gly Pro Thr Pro Arg Gly Arg Arg Phe
 565 570 575
 Ser Ala Gly Met Arg Gly Pro Arg Pro Asn Pro Ala Ile Met Arg Gly
 580 585 590
 Arg Tyr Gly Val Ala Ala Gly Arg Gly Gly Arg Val Ser Thr Asp Asp
 595 600 605
 Trp Pro Cys Asp Trp Val Ala Leu Gly Ala Cys Gly Ser Ala Ser Asn
 610 615 620
 Ile Pro Ile Pro Pro Pro Cys Leu Thr Pro Ser Pro Glu Arg Gly Ser
 625 630 635 640
 Pro Gln Leu Asp Cys Gly Pro Pro Ala Leu Gln Glu Met Pro Ile Asn
 645 650 655
 Gln Gly Gly Glu Gly Lys Lys Ile Glu Glu Tyr Met Val Gly Arg Asn
 660 665 670
 Ser Lys Asn Asp Tyr Pro Leu Lys Gly Arg Leu Glu Gly Leu Pro Gly
 675 680 685
 Phe Lys Met Asp Pro Pro Lys
 690 695

<210> 474

<211> 211

<212> PRT

<213> Homo sapiens

<400> 474

Met Ser Ser Val Val Gly Leu Phe Leu Cys Phe Thr Ser Cys Ser Ser

1	5	10	15
His Phe Ser Leu Tyr Leu Pro Lys Ser Trp Thr Ile Gln Val Gly Leu			
20	25	30	
Val Ser Leu Leu Asp Asn Pro Ala Pro Ser His Leu Val Glu Lys Ile			
35	40	45	
Val Tyr His Ser Lys Tyr Lys Pro Lys Arg Leu Gly Asn Asp Ile Ala			
50	55	60	
Leu Met Lys Leu Ala Gly Pro Leu Thr Phe Asn Glu Met Ile Gln Pro			
65	70	75	80
Val Cys Leu Pro Asn Ser Glu Glu Asn Phe Pro Asp Gly Lys Val Cys			
85	90	95	
Trp Thr Ser Gly Trp Gly Ala Thr Glu Asp Gly Gly Asp Ala Ser Pro			
100	105	110	
Val Leu Asn His Ala Ala Val Pro Leu Ile Ser Asn Lys Ile Cys Asn			
115	120	125	
His Arg Asp Val Tyr Gly Gly Ile Ile Ser Pro Ser Met Leu Cys Ala			
130	135	140	
Gly Tyr Leu Thr Gly Gly Val Asp Ser Cys Gln Gly Asp Ser Gly Gly			
145	150	155	160
Pro Leu Val Cys Gln Glu Arg Arg Leu Trp Lys Leu Val Gly Ala Thr			
165	170	175	
Ser Phe Gly Ile Gly Cys Ala Glu Val Asn Lys Pro Gly Val Tyr Thr			
180	185	190	
Arg Val Thr Ser Phe Leu Asp Trp Ile His Glu Gln Met Glu Arg Asp			
195	200	205	
Leu Lys Thr			
210			

<210> 475

<211> 193

<212> PRT

<213> Homo sapiens

<400> 475

Met His Ala Leu Lys Met Thr Trp His Val His Cys Phe Thr Cys Ala

1

5

10

15

Ala Cys Lys Thr Pro Ile Arg Asn Arg Ala Phe Tyr Met Glu Glu Gly

20

25

30

Val Pro Tyr Cys Glu Arg Gly Thr His Trp Pro Val Arg Val Arg Arg

35

40

45

Asp Gly Ala Trp Gly Arg His Glu Ser Arg Ser Ser Phe Ser Leu Pro

50

55

60

Pro Phe Ser Asp Tyr Glu Lys Met Phe Gly Thr Lys Cys His Gly Cys

65

70

75

80

Asp Phe Lys Ile Asp Ala Gly Asp Arg Phe Leu Glu Ala Leu Gly Phe

85

90

95

Ser Trp His Asp Thr Cys Phe Val Cys Ala Val Arg Ala Pro Pro Leu

100

105

110

Glu Leu Ser Pro Lys Pro Thr Gly Pro Leu Phe Ile Pro Gln Glu Met

115

120

125

Gln Glu Lys Leu Gly Arg Gly Leu Ser Cys Cys Pro Gln Pro His Val

130

135

140

Thr Gly Pro Leu Leu Ser Leu Asp Met Ser Asp Gln Pro Gly Arg Lys

145

150

155

160

Asp Leu Leu Leu Gln Glu Gly Gln Ala Ser Leu Gln Glu Pro Cys Leu

165

170

175

Leu Ser Cys Val Ser Pro Phe Cys Pro Gln Leu Pro Arg Trp Pro Leu

180

185

190

Ala

<210> 476

<211> 134

<212> PRT

<213> Homo sapiens

<400> 476

Met Cys Gln Val Tyr Phe Val Lys Leu Leu Ile Leu Gly Val Leu Leu

1

5

10

15

Cys Phe Leu Leu Val Arg Gln Asp Leu Thr Leu Ser Pro Arg Leu Glu

20

25

30

Cys Ser Gly Ala Ile Trp Ala His Cys Asn Pro Arg Leu Leu Gly Ile

35

40

45

Ser Asn Leu Pro Ala Leu Ala Ser Gln Val Ala Glu Thr Thr Gly Met

50

55

60

Ser His His Thr Gln Leu Thr Thr Cys Asn Phe Phe Asp Arg Asp Arg

65

70

75

80

Ser Cys His Val Thr Gln Thr Asp Leu Lys Thr Pro Gly Leu Arg Arg

85

90

95

Pro Thr His Leu Gly Leu Pro Lys Cys Trp Asp Tyr Arg Cys Glu Pro

100

105

110

Leu His Leu Thr Gln Phe Val Ile Leu Asn Leu Phe Leu Leu Ser Cys

115

120

125

Phe Ser Phe Phe Leu

130

<210> 477

<211> 568

<212> PRT

<213> Homo sapiens

<400> 477

Met	Gly	Ser	Glu	Val	Val	Ala	Gly	Asn	Ser	Val	Gly	Pro	Thr	Met	Gly	
1				5					10				15			
Ala	Ala	Ser	Ser	Gly	Pro	Leu	Pro	Pro	Pro	Pro	Pro	Leu	Pro	Pro		
					20				25				30			
Ser	Ser	Asp	Thr	Pro	Glu	Thr	Val	Gln	Asn	Gly	Pro	Val	Thr	Pro	Pro	
					35			40				45				
Met	Pro	Pro	Pro	Pro	Leu	Pro	Gly	Pro	Ala	Ala	Glu	Thr	Val	Pro		
					50			55			60					
Ala	Pro	Pro	Leu	Ala	Pro	Pro	Leu	Pro	Ser	Ala	Pro	Pro	Leu	Pro	Gly	
					65			70			75			80		
Thr	Ser	Ser	Pro	Thr	Val	Val	Phe	Asn	Ser	Gly	Leu	Ala	Ala	Val	Lys	
					85			90				95				
Ile	Lys	Lys	Pro	Ile	Lys	Thr	Lys	Phe	Arg	Met	Pro	Val	Phe	Asn	Trp	
					100			105			110					
Val	Ala	Leu	Lys	Pro	Asn	Gln	Ile	Asn	Gly	Thr	Val	Phe	Asn	Glu	Ile	
					115			120			125					
Asp	Asp	Glu	Arg	Ile	Leu	Glu	Asp	Leu	Asn	Val	Asp	Glu	Phe	Glu	Glu	
					130			135			140					
Ile	Phe	Lys	Thr	Lys	Ala	Gln	Gly	Pro	Ala	Ile	Asp	Leu	Ser	Ser	Ser	
					145			150			155			160		
Lys	Gln	Lys	Ile	Pro	Gln	Lys	Gly	Ser	Asn	Lys	Val	Thr	Leu	Leu	Glu	

165	170	175
Ala Asn Arg Ala Lys Asn Leu Ala Ile Thr Leu Arg Lys Ala Gly Lys		
180	185	190
Thr Ala Asp Glu Ile Cys Lys Ala Ile His Val Phe Asp Leu Lys Thr		
195	200	205
Leu Pro Val Asp Phe Val Glu Cys Leu Met Arg Phe Leu Pro Thr Glu		
210	215	220
Asn Glu Val Lys Val Leu Arg Leu Tyr Glu Arg Glu Arg Lys Pro Leu		
225	230	235
Glu Asn Leu Ser Asp Glu Asp Arg Phe Met Met Gln Phe Ser Lys Ile		
245	250	255
Glu Arg Leu Met Gln Lys Met Thr Ile Met Ala Phe Ile Gly Asn Phe		
260	265	270
Ala Glu Ser Ile Gln Met Leu Thr Pro Gln Leu His Ala Ile Ile Ala		
275	280	285
Ala Ser Val Ser Ile Lys Ser Ser Gln Lys Leu Lys Lys Ile Leu Glu		
290	295	300
Ile Ile Leu Ala Leu Gly Asn Tyr Met Asn Ser Ser Lys Arg Gly Ala		
305	310	315
Val Tyr Gly Phe Lys Leu Gln Ser Leu Asp Leu Leu Leu Asp Thr Lys		
325	330	335
Ser Thr Asp Arg Lys Gln Thr Leu Leu His Tyr Ile Ser Asn Val Val		
340	345	350
Lys Glu Lys Tyr His Gln Val Ser Leu Phe Tyr Asn Glu Leu His Tyr		
355	360	365
Val Glu Lys Ala Ala Val Ser Leu Glu Asn Val Leu Leu Asp Val		
370	375	380
Lys Glu Leu Gln Arg Gly Met Asp Leu Thr Lys Arg Glu Tyr Thr Met		
385	390	395
400		

His Asp His Asn Thr Leu Leu Lys Glu Phe Ile Leu Asn Asn Glu Gly
 405 410 415
 Lys Leu Lys Lys Leu Gln Asp Asp Ala Lys Ile Ala Gln Asp Ala Phe
 420 425 430
 Asp Asp Val Val Lys Tyr Phe Gly Glu Asn Pro Lys Thr Thr Pro Pro
 435 440 445
 Ser Val Phe Phe Pro Val Phe Val Arg Phe Val Lys Ala Tyr Lys Gln
 450 455 460
 Ala Glu Glu Glu Asn Glu Leu Arg Lys Lys Gln Glu Gln Ala Leu Met
 465 470 475 480
 Glu Lys Leu Leu Glu Gln Glu Ala Leu Met Glu Gln Gln Asp Pro Lys
 485 490 495
 Ser Pro Ser His Lys Ser Lys Arg Gln Gln Gln Glu Leu Ile Ala Glu
 500 505 510
 Leu Arg Arg Arg Gln Val Lys Asp Asn Arg His Val Tyr Glu Gly Lys
 515 520 525
 Asp Gly Ala Ile Glu Asp Ile Ile Thr Ala Leu Lys Lys Asn Asn Ile
 530 535 540
 Thr Lys Phe Pro Asn Val His Ser Arg Val Arg Ile Ser Ser Ser Thr
 545 550 555 560
 Pro Val Val Glu Asp Thr Gln Ser
 565

<210> 478

<211> 415

<212> PRT

<213> Homo sapiens

<400> 478

Met Thr Leu Ala Ala Ser Ser Gln Arg Ser Gln Ile Ile Arg Ser Lys
 1 5 10 15
 Phe Arg Ser Val Leu Gln Leu Arg Ile His Arg Arg Asn Gln Glu Gln
 20 25 30
 Ile Ser Asp Pro Asp Pro Trp Ile Ser Ala Ser Asp Pro Pro Leu Ala
 35 40 45
 Pro Ala Leu Pro Ser Gly Thr Ala Pro Phe Leu Phe Ser Pro Gly Val
 50 55 60
 Leu Leu Pro Glu Pro Glu Tyr Cys Pro Pro Trp Arg Ser Pro Lys Lys
 65 70 75 80
 Glu Ser Pro Lys Ile Ser Gln Arg Trp Arg Glu Ser Lys Pro Arg Gly
 85 90 95
 Asn Leu Thr Tyr His Gln Tyr Met Pro Pro Glu Pro Arg Gln Gly Ser
 100 105 110
 Arg Ala Asp Pro Gln Ala Glu Gly Ser Ala Leu Gly Pro Pro Gly Pro
 115 120 125
 Ser Leu Trp Glu Gly Thr Asp Ser Gln Gln Pro His Pro Arg Met Lys
 130 135 140
 Pro Ser Pro Leu Thr Pro Cys Pro Pro Gly Val Pro Ser Pro Ser Pro
 145 150 155 160
 Pro Pro His Lys Leu Glu Leu Gln Thr Leu Lys Leu Glu Glu Leu Thr
 165 170 175
 Val Ser Glu Leu Arg Gln Gln Leu Arg Leu Arg Gly Leu Pro Val Ser
 180 185 190
 Gly Thr Lys Ser Met Leu Leu Glu Arg Met Arg Gly Gly Ala Pro Pro
 195 200 205
 Arg Glu Arg Pro Lys Pro Arg Arg Glu Asp Ser Pro Ala Gly Ala Pro
 210 215 220

Trp Pro Arg Leu Lys Pro Lys Ala Leu Ala Ala Arg Arg Gln Gly
 225 230 235 240
 Ser Val Lys Pro Ser Ala Ala Ser His Arg Pro Pro Leu Pro Arg Ala
 245 250 255
 Ala Asp Thr Pro Gly Thr Ala Pro Ala Pro Thr Pro Thr Pro Ala Pro
 260 265 270
 Ala Ala Ala Pro Ala Leu Thr Pro Ser Ser Gly Pro Gly Ser Ala Ala
 275 280 285
 Leu Thr Leu Glu Glu Leu Gln Glu Ala Ile Arg Arg Ala Gln Leu
 290 295 300
 Leu Pro Asn Arg Gly Ile Asp Asp Ile Leu Glu Asp Gln Val Glu Pro
 305 310 315 320
 Asp Asp Pro Leu Pro Pro Ile Pro Leu Asp Phe Pro Gly Ser Phe Asp
 325 330 335
 Val Leu Ser Pro Ser Pro Asp Ser Glu Gly Leu Ser Ser Val Phe Ser
 340 345 350
 Ser Ser Leu Pro Ser Pro Thr Asn Ser Ser Ser Pro Ser Pro Arg Asp
 355 360 365
 Pro Thr Asp Ser Leu Asp Trp Leu Glu Ala Leu Ser Gly Gly Pro Pro
 370 375 380
 Leu Gly Ser Gly Pro Pro Pro Ser Ile Phe Ser Ala Asp Leu Ser
 385 390 395 400
 Asp Ser Ser Ser Arg Leu Trp Asp Leu Leu Glu Asp Pro Trp
 405 410 415

<210> 479

<211> 197

<212> PRT

<213> Homo sapiens

<400> 479

Met Ser Cys Tyr Pro Thr Phe Asp Trp Ala Thr Trp Ala Glu Gly Glu
 1 5 10 15

Lys Gly Val Trp Lys Ser Pro Pro Ser Ile Gln Thr Gly Asp Gln Ile
 20 25 30

Gly Val Arg Glu Glu Leu Leu Asn Ala Leu His Ser Ser Leu Ala Arg
 35 40 45

Pro Ala Ile Lys Lys His Gln His Pro Lys Gly Lys Lys Lys Arg Arg
 50 55 60

Ser Arg Glu Lys His Gln Glu Ser Thr Thr Asp Pro Gly Ser Pro Lys
 65 70 75 80

Lys Cys Arg Ala Arg Phe Gly Leu Asn Gln Gln Thr Asp Trp Cys Gly
 85 90 95

Pro Cys Arg Arg Lys Lys Cys Ile Arg Tyr Leu Pro Gly Glu Gly
 100 105 110

Arg Cys Pro Ser Pro Val Pro Ser Asp Asp Ser Ala Leu Gly Cys Pro
 115 120 125

Gly Ser Pro Ala Pro Gln Asp Ser Pro Ser Tyr His Leu Leu Pro Arg
 130 135 140

Phe Pro Thr Glu Leu Leu Thr Ser Pro Ala Glu Pro Ala Pro Thr Ser
 145 150 155 160

Pro Gly Leu Ser Thr Ala Leu Ser Leu Pro Thr Pro Gly Pro Pro Gln
 165 170 175

Ala Pro Arg Ser Thr Leu Gln Ser Thr Gln Val Gln Gln Glu Ser
 180 185 190

Gln Arg Gln Val Ala
 195

<210> 480

<211> 209

<212> PRT

<213> Homo sapiens

<400> 480

Met Lys Lys Leu Thr Pro Lys Gln Lys Phe Ser Glu Asp Leu Glu Ser
1 5 10 15
Tyr Lys Ile Ser Val Val Met Gln Glu Ser Ala Glu Lys Leu Ser Glu
20 25 30
Lys Leu His Lys Cys Lys Glu Phe Val Asp Ser Cys Arg Leu Thr Phe
35 40 45
Pro Thr Ser Gly Asp Glu Tyr Ser Arg Gly Phe Leu Gln Asn Leu Asn
50 55 60
Leu Ile Gln Asp Gln Asn Ala Gln Thr Arg Trp Lys Gln Gly Arg Tyr
65 70 75 80
Asp Glu Asp Gly Lys Pro Phe Asn Gln Arg Ser Leu Leu Gly His
85 90 95
Glu Arg Ile Leu Thr Arg Ala Lys Ser Tyr Glu Cys Ser Glu Cys Gly
100 105 110
Lys Val Ile Arg Arg Lys Ala Trp Phe Asp Gln His Gln Arg Ile His
115 120 125
Phe Leu Glu Asn Pro Phe Glu Cys Lys Val Cys Gly Gln Ala Phe Arg
130 135 140
Gln Arg Ser Ala Leu Thr Val His Lys Gln Cys His Leu Gln Asn Lys
145 150 155 160
Pro Tyr Arg Cys His Asp Cys Gly Lys Cys Phe Arg Gln Leu Ala Phe

165	170	175
Leu Leu Asn Ile Arg Gly Phe Thr Pro Lys Lys Asn Leu Ile Asn Val		
180	185	190
Ala Asn Val Lys Lys Arg Leu Val Arg Ile Gln Pro Leu Phe Asp Ile		
195	200	205
Arg		

<210> 481

<211> 259

<212> PRT

<213> Homo sapiens

<400> 481

Met Glu Cys His Leu Lys Thr His Tyr Lys Met Glu Tyr Lys Cys Arg		
1	5	10
Ile Cys Gln Thr Val Lys Ala Asn Gln Leu Glu Leu Glu Thr Arg Thr		
20	25	30
Arg Glu His Arg Leu Gly Asn His Tyr Lys Cys Asp Gln Cys Gly Tyr		
35	40	45
Leu Ser Lys Thr Ala Asn Lys Leu Ile Glu His Val Arg Val His Thr		
50	55	60
Gly Glu Arg Pro Phe His Cys Asp Gln Cys Ser Tyr Ser Cys Lys Arg		
65	70	75
Lys Asp Asn Leu Asn Leu His Lys Lys Leu Lys His Ala Pro Arg Gln		
85	90	95
Thr Phe Ser Cys Glu Glu Cys Leu Phe Lys Thr Thr His Pro Phe Val		
100	105	110

Phe Ser Arg His Val Lys Lys His Gln Ser Gly Asp Cys Pro Glu Glu
 115 120 125
 Asp Lys Lys Gly Leu Cys Pro Ala Pro Lys Glu Pro Ala Gly Pro Gly
 130 135 140
 Ala Pro Leu Leu Val Val Gly Ser Ser Arg Asn Leu Leu Ser Pro Leu
 145 150 155 160
 Ser Val Met Ser Ala Ser Gln Ala Leu Gln Thr Val Ala Leu Ser Ala
 165 170 175
 Ala His Gly Ser Ser Ser Glu Pro Asn Leu Ala Leu Lys Ala Leu Ala
 180 185 190
 Phe Asn Gly Ser Pro Leu Arg Phe Asp Lys Tyr Arg Asn Ser Asp Phe
 195 200 205
 Ala His Leu Ile Pro Leu Thr Met Leu Tyr Pro Lys Asn His Leu Asp
 210 215 220
 Leu Thr Phe His Pro Pro Arg Pro Gln Thr Ala Pro Pro Ser Ile Pro
 225 230 235 240
 Ser Pro Lys His Pro Phe Leu Ala Tyr Leu Gly Leu Arg Glu Arg Ala
 245 250 255
 Glu Thr Val

<210> 482

<211> 160

<212> PRT

<213> Homo sapiens

<400> 482

Met Ile Ser Ala Tyr Cys Asn Leu His Leu Leu Gly Ser Ser Asn Ser

1	5	10	15
Ser Ala Ser Ala Ser Gln Val Ala Gly Ile Thr Gly Ala Cys Gln His			
20	25	30	
Ala Trp Leu Ile Trp Gly Tyr Ser Ser Phe Leu Arg Gln Ser Phe Ala			
35	40	45	
Leu Ser Pro Lys Leu Glu Cys Ser Gly Thr Ile Ser Ala Leu Cys Ser			
50	55	60	
Leu Cys Leu Leu Gly Ser Ser Asp Ser Pro Ser Ser Ala Ser Gln Val			
65	70	75	80
Ala Gly Ile Thr Gly Ala Cys Tyr His Ala Gln Leu Ile Phe Val Phe			
85	90	95	
Leu Val Gln Met Arg Phe His His Leu Gly Gln Ala Gly Leu Glu Leu			
100	105	110	
Leu Thr Ser Ser Asp Leu Pro Ala Ser Ala Ser Gln Ser Ala Gly Ile			
115	120	125	
Thr Asp Val Asn His His Ala Gln Pro Leu Trp Gly Tyr Ser Cys Pro			
130	135	140	
Tyr Phe Ser Phe Ile Val Leu Tyr Lys Lys Val Val Leu Leu Tyr Leu			
145	150	155	160

<210> 483

<211> 276

<212> PRT

<213> Homo sapiens

<400> 483

Met Asn Val Gln Ser Ser Arg Ser His Ala Ile Phe Thr Ile His Leu

1 5 10 15

Cys Gln Met Arg Met Cys Thr Gln Pro Asp Leu Val Asn Glu Ala Val
 20 25 30
 Thr Gly Leu Pro Asp Gly Thr Pro Pro Ser Ser Glu Tyr Glu Thr Leu
 35 40 45
 Thr Ala Lys Phe His Phe Val Asp Leu Ala Gly Ser Glu Arg Leu Lys
 50 55 60
 Arg Thr Gly Ala Thr Gly Glu Arg Ala Lys Glu Gly Ile Ser Ile Asn
 65 70 75 80
 Cys Gly Leu Val Gly Thr Trp Trp Val Ile Ser Pro Ser Thr His Thr
 85 90 95
 Ala Gln Ser Gln Thr Pro Pro Arg Pro Cys Ser Pro Thr Pro Ala Glu
 100 105 110
 Ser Ser Leu Asp Ile Leu Pro Ile Ser Pro Ser Leu Ser Gly Val Thr
 115 120 125
 Pro Val Pro Ser Phe Pro Ile Ser Pro Thr Tyr Pro Cys Ala Tyr Lys
 130 135 140
 Pro Thr Gln Gly Ala Arg Gly Leu Leu Gly Pro Lys Arg Gln Leu Ala
 145 150 155 160
 Leu Gly Asn Val Ile Ser Ala Leu Gly Asp Gln Ser Lys Lys Val Val
 165 170 175
 His Val Ser Tyr Arg Asp Ser Lys Leu Thr Arg Leu Leu Gln Asp Ser
 180 185 190
 Leu Gly Gly Asn Ser Gln Thr Ile Met Ile Ala Cys Val Ser Pro Ser
 195 200 205
 Asp Arg Asp Phe Met Glu Thr Leu Asn Thr Leu Lys Tyr Ala Asn Arg
 210 215 220
 Ala Arg Asn Ile Lys Asn Lys Val Val Asn Gln Asp Lys Thr Ser
 225 230 235 240
 Gln Gln Ile Ser Ala Leu Arg Ala Glu Ile Ala Arg Leu Gln Met Glu

245	250	255
Leu Met Glu Tyr Lys Ala Val Ser Met Leu Leu Gly Ile Ala Gln His		
260	265	270
Ser Pro Trp Ser		
275		

<210> 484

<211> 159

<212> PRT

<213> Homo sapiens

<400> 484

Met Gln Gly Ala Glu Leu His Pro Arg Cys His Ala Trp Val Ser Val

1	5	10	15
---	---	----	----

Phe Ala Leu Gly Leu Thr Leu Lys Arg Thr Gly Gln Pro Gln Ala Pro

20	25	30
----	----	----

Ser Thr Gly Asp Leu Pro Ser Gly Pro Ala Gly Lys Ala Gly Ser Arg

35	40	45
----	----	----

Glu Leu Arg Gly Glu Pro Pro Thr Trp Val Trp His Pro Pro Ile Ser

50	55	60
----	----	----

Asp Asn Phe His Gln Glu Asp Ser Lys Arg Pro His Val Cys Phe Asp

65	70	75	80
----	----	----	----

Gly Glu Asp Pro Glu Val Asp Gly Phe Arg Gly Cys Pro Leu Asp Gly

85	90	95
----	----	----

Glu Leu Gly Pro Cys Gly Lys Ser His Ala Ser Phe Gly Arg Pro Arg

100	105	110
-----	-----	-----

Pro Val Ala Pro Thr Leu His Pro His Pro Tyr Pro Cys Ser Cys Cys

115	120	125
-----	-----	-----

Pro Ser Ile Lys Pro Pro Leu Arg Gly Leu Thr Gly Arg Gly Gly Gln

130 135 140

Ala Trp Arg Gly Ser His Tyr Arg Thr Pro Gly His Met Thr Arg

145 150 155

<210> 485

<211> 781

<212> PRT

<213> Homo sapiens

<400> 485

Met Lys Ser Ser Gly Pro Val Glu Arg Leu Leu Arg Ala Leu Gly Arg

1 5 10 15

Arg Asp Ser Ser Arg Ala Ala Ser Arg Pro Arg Lys Ala Glu Pro His

20 25 30

Ser Phe Arg Glu Lys Val Phe Arg Lys Lys Pro Pro Val Cys Ala Val

35 40 45

Cys Lys Val Thr Ile Asp Gly Thr Gly Val Ser Cys Arg Val Cys Lys

50 55 60

Val Ala Thr His Arg Lys Cys Glu Ala Lys Val Thr Ser Ala Cys Gln

65 70 75 80

Ala Leu Pro Pro Val Glu Leu Arg Arg Asn Thr Ala Pro Val Arg Arg

85 90 95

Ile Glu His Leu Gly Ser Thr Lys Ser Leu Asn His Ser Lys Gln Arg

100 105 110

Ser Thr Leu Pro Arg Ser Phe Ser Leu Asp Pro Leu Met Glu Arg Arg

115 120 125

Trp Asp Leu Asp Leu Thr Tyr Val Thr Glu Arg Ile Leu Ala Ala Ala

130	135	140
Phe Pro Ala Arg Pro Asp Glu Gln Arg His Arg Gly His Leu Arg Glu		
145	150	155
Leu Ala His Val Leu Gln Ser Lys His Arg Asp Lys Tyr Leu Leu Phe		
165	170	175
Asn Leu Ser Glu Lys Arg His Asp Leu Thr Arg Leu Asn Pro Lys Val		
180	185	190
Gln Asp Phe Gly Trp Pro Glu Leu His Ala Pro Pro Leu Asp Lys Leu		
195	200	205
Cys Ser Ile Cys Lys Ala Met Glu Thr Trp Leu Ser Ala Asp Pro Gln		
210	215	220
His Val Val Val Leu Tyr Cys Lys Gly Asn Lys Gly Lys Leu Gly Val		
225	230	235
Ile Val Ser Ala Tyr Met His Tyr Ser Lys Ile Ser Ala Gly Ala Asp		
245	250	255
Gln Ala Leu Ala Thr Leu Thr Met Arg Lys Phe Cys Glu Asp Lys Val		
260	265	270
Ala Thr Glu Leu Gln Pro Ser Gln Arg Arg Tyr Ile Ser Tyr Phe Ser		
275	280	285
Gly Leu Leu Ser Gly Ser Ile Arg Met Asn Ser Ser Pro Leu Phe Leu		
290	295	300
His Tyr Val Leu Ile Pro Met Leu Pro Ala Phe Glu Pro Gly Thr Gly		
305	310	315
Phe Gln Pro Phe Leu Lys Ile Tyr Gln Ser Met Gln Leu Val Tyr Thr		
325	330	335
Ser Gly Val Tyr His Ile Ala Gly Pro Gly Pro Gln Gln Leu Cys Ile		
340	345	350
Ser Leu Glu Pro Ala Leu Leu Lys Gly Asp Val Met Val Thr Cys		
355	360	365

Tyr His Lys Gly Gly Arg Gly Thr Asp Arg Thr Leu Val Phe Arg Val
 370 375 380
 Gln Phe His Thr Cys Thr Ile His Gly Pro Gln Leu Thr Phe Pro Lys
 385 390 395 400
 Asp Gln Leu Asp Glu Ala Trp Thr Asp Glu Arg Phe Pro Phe Gln Ala
 405 410 415
 Ser Val Glu Phe Val Phe Ser Ser Ser Pro Glu Lys Ile Lys Gly Ser
 420 425 430
 Thr Pro Arg Asn Asp Pro Ser Val Ser Val Asp Tyr Asn Thr Thr Glu
 435 440 445
 Pro Ala Val Arg Trp Asp Ser Tyr Glu Asn Phe Asn Gln His His Glu
 450 455 460
 Asp Ser Val Asp Gly Ser Leu Thr His Thr Arg Gly Pro Leu Asp Gly
 465 470 475 480
 Ser Pro Tyr Ala Gln Val Gln Arg Pro Pro Arg Gln Thr Pro Pro Ala
 485 490 495
 Pro Ser Pro Glu Pro Pro Pro Met Leu Ser Val Ser Ser Asp
 500 505 510
 Ser Gly His Ser Ser Thr Leu Thr Thr Glu Pro Ala Ala Glu Ser Pro
 515 520 525
 Gly Arg Pro Pro Pro Thr Ala Ala Glu Arg Gln Glu Leu Asp Arg Leu
 530 535 540
 Leu Gly Gly Cys Gly Val Ala Ser Gly Gly Arg Gly Ala Gly Arg Glu
 545 550 555 560
 Thr Ala Ile Leu Asp Asp Glu Glu Gln Pro Thr Val Gly Gly Pro
 565 570 575
 His Leu Gly Val Tyr Pro Gly His Arg Pro Gly Leu Ser Arg His Cys
 580 585 590
 Ser Cys Arg Gln Gly Tyr Arg Glu Pro Cys Gly Val Pro Asn Gly Gly

595	600	605
Tyr Tyr Arg Pro Glu Gly Thr Leu Glu Arg Arg Arg Leu Ala Tyr Gly		
610	615	620
Gly Tyr Glu Gly Ser Pro Gln Gly Tyr Ala Glu Ala Ser Met Glu Lys		
625	630	635
Arg Arg Leu Cys Arg Ser Leu Ser Glu Gly Leu Tyr Pro Tyr Pro Pro		640
645	650	655
Glu Met Gly Lys Pro Ala Thr Gly Asp Phe Gly Tyr Arg Ala Ser Ser		
660	665	670
Ala Ala Leu Ser Cys Ser Pro Arg Pro Thr Pro Ala Val Val His Phe		
675	680	685
Lys Val Ser Ala Gln Gly Ile Thr Leu Thr Asp Asn Gln Arg Lys Leu		
690	695	700
Phe Phe Arg Arg His Tyr Pro Val Asn Ser Ile Thr Phe Ser Ser Thr		
705	710	715
Asp Pro Gln Asp Arg Arg Trp Thr Asn Pro Asp Gly Thr Thr Ser Lys		720
725	730	735
Ile Phe Gly Phe Val Ala Lys Pro Gly Ser Pro Trp Glu Asn Val		
740	745	750
Cys His Leu Phe Ala Glu Leu Asp Pro Asp Gln Pro Ala Gly Ala Ile		
755	760	765
Val Thr Phe Ile Thr Lys Val Leu Leu Gly Gln Arg Lys		
770	775	780

<210> 486

<211> 114

<212> PRT

<213> Homo sapiens

<400> 486

Met Ile Lys Glu Leu Thr Gln Asn Leu Asn Thr Phe Phe Ile Glu Phe
 1 5 10 15
 Ile Tyr Gly Cys Leu Leu Phe Val Glu Phe Phe Ser Ser Leu Phe Ser
 20 25 30
 Phe Phe Phe Ser Phe Leu Ser Ser Leu Leu Phe Ser Phe Phe Ser Val
 35 40 45
 Ala Gln Ala Gly Val Gln Trp His Asp Leu Gly Ser Leu Gln Pro Pro
 50 55 60
 Pro Pro Arg Phe Lys His Leu Ser Cys Leu Ser Leu Pro Ser Ser Trp
 65 70 75 80
 Asp Tyr Arg Cys Pro Pro Pro Ser Pro Ala Asn Phe Cys Ile Phe Ser
 85 90 95
 Arg Asp Arg Val Ser Pro Cys Trp Leu Gly Trp Ser Arg Thr Ser Asp
 100 105 110
 Leu Lys

<210> 487

<211> 141

<212> PRT

<213> Homo sapiens

<400> 487

Met Pro Val Ile Pro Ala Leu Gly Glu Ala Lys Gly Glu Val Leu Pro
 1 5 10 15
 Pro Gly Asp Thr Thr Thr Ile Ile Pro Leu Asn Trp Met Leu Lys Ser

20	25	30
Pro Pro Gly His Phe Gly Leu Leu Leu Leu Ser Gln Gln Ala Lys		
35	40	45
Asn Gly Val Met Val Leu Ala Gly Val Thr Asp Pro Glu Tyr Gln Asp		
50	55	60
Glu Ile Ser Leu Leu Leu His Asn Glu Gly His Leu Lys Glu Val Lys		
65	70	75
Met Glu Gly Ala Arg Leu Gly Leu Pro Gly Arg Ala Glu Ser Leu Glu		
85	90	95
His Gln Val Gln Ser His Leu Asn Met Ile Ala Gln Ser Gln Arg Thr		
100	105	110
Phe Gln Lys Lys Asp Ala Gly Lys Ala Ile Ile Leu Ser Lys Leu Thr		
115	120	125
Gln Glu Gln Lys Thr Lys His Cys Met Phe Ser Leu His		
130	135	140

<210> 488

<211> 731

<212> PRT

<213> Homo sapiens

<400> 488

Met His Leu Arg Leu Arg Pro Glu Val Gly Arg Ser Arg Ala Arg Ser			
1	5	10	15
Gly Glu Pro Ala Gly Ser Ala Ala Ala Arg Glu Val Met Ala Ala Ala			
20	25	30	
Pro Ala Arg Gly Gly Gly Gly Gly Gly Gly Gly Cys Ser			
35	40	45	

Gly Ser Gly Ser Ser Ala Ser Arg Gly Phe Tyr Phe Asn Thr Val Leu
 50 55 60
 Ser Leu Ala Arg Ser Leu Ala Val Gln Arg Pro Ala Ser Leu Glu Lys
 65 70 75 80
 Val Arg Lys Leu Leu Cys Met Cys Pro Val Asp Phe His Gly Ile Phe
 85 90 95
 Gln Leu Asp Glu Arg Arg Asp Ala Val Ile Ala Leu Gly Ile Phe
 100 105 110
 Leu Ile Glu Ser Asp Leu Gln His Lys Asp Cys Val Val Pro Tyr Leu
 115 120 125
 Leu Arg Leu Leu Lys Gly Leu Pro Lys Val Tyr Trp Val Glu Glu Ser
 130 135 140
 Thr Ala Arg Lys Gly Arg Gly Ala Leu Pro Val Ala Glu Ser Phe Ser
 145 150 155 160
 Phe Cys Leu Val Thr Leu Leu Ser Asp Val Ala Tyr Arg Asp Pro Ser
 165 170 175
 Leu Arg Asp Glu Ile Leu Glu Val Leu Leu Gln Val Leu His Val Leu
 180 185 190
 Leu Gly Met Cys Gln Ala Leu Glu Ile Gln Asp Lys Glu Tyr Leu Cys
 195 200 205
 Lys Tyr Ala Ile Pro Cys Leu Ile Gly Ile Ser Arg Ala Phe Gly Arg
 210 215 220
 Tyr Ser Asn Met Glu Glu Ser Leu Leu Ser Lys Leu Phe Pro Lys Ile
 225 230 235 240
 Pro Pro His Ser Leu Arg Val Leu Glu Leu Glu Gly Val Arg Arg
 245 250 255
 Arg Ser Phe Asn Asp Phe Arg Ser Ile Leu Pro Ser Asn Leu Leu Thr
 260 265 270
 Val Cys Gln Glu Gly Thr Leu Lys Arg Lys Thr Ser Ser Val Ser Ser

275	280	285
Ile Ser Gln Val Ser Pro Glu Arg Gly Met Pro Pro Pro Ser Ser Pro		
290	295	300
Gly Gly Ser Ala Phe His Tyr Phe Glu Ala Ser Cys Leu Pro Asp Gly		
305	310	315
Thr Ala Leu Glu Pro Glu Tyr Tyr Phe Ser Thr Ile Ser Ser Ser Phe		
325	330	335
Ser Val Ser Pro Leu Phe Asn Gly Val Thr Tyr Lys Glu Phe Asn Ile		
340	345	350
Pro Leu Glu Met Leu Arg Glu Leu Leu Asn Leu Val Lys Lys Ile Val		
355	360	365
Glu Glu Ala Val Leu Lys Ser Leu Asp Ala Ile Val Ala Ser Val Met		
370	375	380
Glu Ala Asn Pro Ser Ala Asp Leu Tyr Tyr Ser Phe Ser Asp Pro		
385	390	395
Leu Tyr Leu Thr Met Phe Lys Met Leu Arg Asp Thr Leu Tyr Tyr Met		
405	410	415
Lys Asp Leu Pro Thr Ser Phe Val Lys Glu Ile His Asp Phe Val Leu		
420	425	430
Glu Gln Phe Asn Thr Ser Gln Gly Glu Leu Gln Lys Ile Leu His Asp		
435	440	445
Ala Asp Arg Ile His Asn Glu Leu Ser Pro Leu Lys Leu Arg Cys Gln		
450	455	460
Ala Asn Ala Ala Cys Val Asp Leu Met Val Trp Ala Val Lys Asp Glu		
465	470	475
Gln Gly Ala Glu Asn Leu Cys Ile Lys Leu Ser Glu Lys Leu Gln Ser		
485	490	495
Lys Thr Ser Ser Lys Val Ile Ile Ala His Leu Pro Leu Leu Ile Cys		
500	505	510

Cys Leu Gln Gly Leu Gly Arg Leu Cys Glu Arg Phe Pro Val Val Val
 515 520 525
 His Ser Val Thr Pro Ser Leu Arg Asp Phe Leu Val Ile Pro Ser Pro
 530 535 540
 Val Leu Val Lys Leu Tyr Lys Tyr His Ser Gln Tyr His Thr Val Ala
 545 550 555 560
 Gly Asn Asp Ile Lys Ile Ser Val Thr Asn Glu His Ser Glu Ser Thr
 565 570 575
 Leu Asn Val Met Ser Gly Lys Ser Gln Pro Ser Met Tyr Glu Gln
 580 585 590
 Leu Arg Asp Ile Ala Ile Asp Asn Ile Cys Arg Cys Leu Lys Ala Gly
 595 600 605
 Leu Thr Val Asp Pro Val Ile Val Glu Ala Phe Leu Ala Ser Leu Ser
 610 615 620
 Asn Arg Leu Tyr Ile Ser Gln Glu Ser Asp Lys Asp Ala His Leu Ile
 625 630 635 640
 Pro Asp His Thr Ile Arg Ala Leu Gly His Ile Ala Val Ala Leu Arg
 645 650 655
 Asp Thr Pro Lys Val Met Glu Pro Ile Leu Gln Ile Leu Gln Gln Lys
 660 665 670
 Phe Cys Gln Pro Pro Ser Pro Leu Asp Val Leu Ile Ile Asp Gln Leu
 675 680 685
 Gly Cys Leu Val Ile Thr Gly Asn Gln Tyr Ile Tyr Gln Glu Val Trp
 690 695 700
 Asn Leu Phe Gln Gln Ile Ser Val Lys Ala Ser Ser Val Val Tyr Ser
 705 710 715 720
 Ala Thr Lys Asp Tyr Lys Asp His Gly Tyr Arg
 725 730

<210> 489

<211> 288

<212> PRT

<213> Homo sapiens

<400> 489

Met Ser Arg Glu Leu Ala Pro Leu Leu Leu Leu Leu Ser Ile His

1 5 10 15

Ser Ala Leu Ala Met Arg Ile Cys Ser Phe Asn Val Arg Ser Phe Gly

20 25 30

Glu Ser Lys Gln Glu Asp Lys Asn Ala Met Asp Val Ile Val Lys Val

35 40 45

Ile Lys Arg Cys Asp Ile Ile Leu Val Met Glu Ile Lys Asp Ser Asn

50 55 60

Asn Arg Ile Cys Pro Ile Leu Met Glu Lys Leu Asn Arg Asn Ser Arg

65 70 75 80

Arg Gly Ile Thr Tyr Asn Tyr Val Ile Ser Ser Arg Leu Gly Arg Asn

85 90 95

Thr Tyr Lys Glu Gln Tyr Ala Phe Leu Tyr Lys Glu Lys Leu Val Ser

100 105 110

Val Lys Arg Ser Tyr His Tyr His Asp Tyr Gln Asp Gly Asp Ala Asp

115 120 125

Val Phe Ser Arg Glu Pro Phe Val Val Trp Phe Gln Ser Pro His Thr

130 135 140

Ala Val Lys Asp Phe Val Ile Ile Pro Leu His Thr Thr Pro Glu Thr

145 150 155 160

Ser Val Lys Glu Ile Asp Glu Leu Val Glu Val Tyr Thr Asp Val Lys

165 170 175

His Arg Trp Lys Ala Glu Asn Phe Ile Phe Met Gly Asp Phe Asn Ala
 180 185 190
 Gly Cys Ser Tyr Val Pro Lys Lys Ala Trp Lys Asn Val Arg Leu Arg
 195 200 205
 Thr Asp Pro Arg Phe Val Trp Leu Ile Gly Asp Gln Glu Asp Thr Thr
 210 215 220
 Val Lys Lys Ser Thr Asn Cys Ala Tyr Asp Arg Ile Val Leu Arg Gly
 225 230 235 240
 Gln Glu Ile Val Ser Ser Val Val Pro Lys Ser Asn Ser Val Phe Asp
 245 250 255
 Phe Gln Lys Ala Tyr Lys Leu Thr Glu Glu Glu Val Arg Leu Pro Ser
 260 265 270
 Cys Leu Ser Met Pro Leu Ser Trp Lys Asp Glu Leu Ala Trp Ala Thr
 275 280 285

<210> 490

<211> 143

<212> PRT

<213> Homo sapiens

<400> 490

Met Pro Ser Thr Pro Ser Ser Arg Arg Ser Arg Asn Ser Ser Arg Ser
 1 5 10 15

Pro Pro Gln Thr Ala Asp Cys Trp Ala Ser Ser Lys Ala Arg Thr Pro
 20 25 30

Ser Ser Thr Glu Leu Gln Pro Cys Leu Glu Gly Arg Pro Pro Ser Cys
 35 40 45

His Pro Asp Leu Ser Gly Ser Pro Phe Pro Pro Ser Leu Asp Pro Lys

50	55	60															
Ser	Gly	Ala	Ile	His	Gln	Glu	Cys	Arg	Pro	Leu	Val	Gly	Gly	Ala	Gly		
65			70				75				80						
Cys	Cys	Leu	Pro	Ile	Gly	Gln	Leu	Leu	Pro	Glu	Met	Gln	Met	Arg	Leu		
														85	90	95	
Leu	Glu	Thr	Gly	Trp	Glu	Leu	Ala	Glu	Pro	Arg	Trp	Arg	Arg	Gly	Ser		
														100	105	110	
Ala	Pro	Gly	His	Phe	Thr	Gly	Arg	Glu	Gly	Glu	Gly	Lys	Lys	Ser	Leu		
														115	120	125	
Arg	Leu	Trp	Asp	Thr	Asp	Ser	Gln	Asn	Lys	His	Ile	Cys	Gly	Cys			
														130	135	140	

<210> 491

<211> 281

<212> PRT

<213> Homo sapiens

<400> 491

Met	Ala	Val	Asp	Ser	Leu	Leu	Arg	Ile	Leu	Lys	Thr	Leu	Arg	Leu	Asp		
1														15			
Phe	Ile	Gln	Glu	Leu	Glu	Val	Phe	Tyr	Trp	Cys	Arg	Asp	Phe	Leu	Val		
														20	25	30	
Leu	Ala	Glu	Pro	Asn	Leu	Ser	Ala	Ile	Gln	Leu	Gly	Arg	Ile	Phe	Asn		
														35	40	45	
Leu	Arg	Ser	Leu	Lys	Leu	Phe	Tyr	Tyr	Lys	Trp	Ala	Phe	Ser	Ser	Trp		
														50	55	60	
Val	Arg	Arg	Pro	Ser	Ser	Tyr	Phe	Phe	Ser	Gln	Leu	Thr	Met	Leu	Gly		
														65	70	75	
															80		

His Leu Arg Lys Leu His Leu Ser His Ser Tyr Leu Val Gly Lys Leu
 85 90 95
 His Tyr Ile Leu Ser Cys Leu Trp Val Pro Leu His Ser Leu Glu Ile
 100 105 110
 Cys Asn Cys Lys Leu Leu Asp Thr Asp Ile Thr Tyr Leu Ser Arg Ser
 115 120 125
 His His Thr Thr Cys Leu Lys Lys Leu Asp Leu Ser Val Asn Asp Leu
 130 135 140
 Ser Tyr Met Ile Pro Gly Pro Leu Gly Thr Leu Leu Arg Ala Val Ser
 145 150 155 160
 Gly Thr Leu Gln His Leu Asp Leu Lys His Cys Trp Leu Lys Asp Ala
 165 170 175
 His Leu Ser Ala Leu Leu Pro Ala Leu Cys Arg Cys Ser His Leu Ser
 180 185 190
 Ser Leu Ser Leu Ser Asp Asn Pro Ile Ser Ser Ala Cys Leu Leu Ser
 195 200 205
 Leu Leu Glu His Thr Met Gly Leu Met Glu Leu Lys Gln Val Leu Tyr
 210 215 220
 Pro Ile Pro Val Asp Cys Cys Ile Tyr Leu His Gly Val Cys Arg Gly
 225 230 235 240
 Pro Val Asn Glu Asp Lys Leu Cys Gln Leu Gln Ala Glu Ile Gln Lys
 245 250 255
 Gln Leu Gln Ala Met Gln Gln Ala Asp Met Gln Trp Ser Pro Ser Thr
 260 265 270
 Val Phe Ala Tyr Ala Ala Gly Ala Val
 275 280

<210> 492

<211> 197

<212> PRT

<213> Homo sapiens

<400> 492

Met	Val	Gln	Ala	Pro	Cys	Leu	Val	Val	Leu	Ser	Phe	His	Val	Val	Leu
1								10						15	
Ser	Leu	Gln	Val	His	Arg	Ser	Gln	Glu	Leu	Gly	Phe	Trp	Asn	Leu	His
								25					30		
Leu	Asp	Phe	Arg	Arg	Cys	Met	Glu	Met	Pro	Gly	Cys	Pro	Gly	Arg	Asn
								35					45		
Leu	Leu	Gln	Gly	Trp	Gly	Ser	His	Gly	Glu	Pro	Leu	Leu	Gly	Gln	Cys
								50					60		
Arg	Arg	Glu	Met	Trp	Gly	Gly	Ser	Pro	Thr	Gln	Ser	Pro	Tyr	Trp	Gly
								65					80		
Thr	Val	Leu	Gln	Thr	Gln	Asn	Gly	Arg	Ser	Thr	Asp	Ser	Leu	His	Cys
								85					95		
Val	Pro	Gly	Lys	Ala	Thr	Asp	Thr	Gln	Cys	Gln	Pro	Met	Lys	Ala	Thr
								100					110		
Arg	Arg	Glu	Thr	Val	Pro	Cys	Lys	Ala	Thr	Gly	Ala	Glu	Leu	Leu	Lys
								115					125		
Thr	Met	Gly	Thr	Tyr	Leu	Leu	Tyr	Gln	His	Asp	Leu	Asp	Val	Arg	His
								130					140		
Gly	Val	Lys	Gly	Glu	His	Phe	Gly	Ala	Leu	Arg	Phe	Asp	Cys	Pro	Ala
								145					160		
Gly	Phe	Trp	Thr	Cys	Met	Gly	Pro	Val	Ala	Pro	Leu	Phe	Trp	Pro	Val
								165					175		
Ser	Pro	Ile	Trp	Asn	Gly	Tyr	Ile	Tyr	Pro	Met	Pro	Ile	Pro	Pro	Leu
								180					190		

Tyr Pro Gly Ser Asn

195

<210> 493

<211> 218

<212> PRT

<213> Homo sapiens

<400> 493

Met Trp Leu His Arg Gly Pro Leu Arg Pro Pro Gly Val Arg Trp Thr
1 5 10 15

Pro Trp Ala Phe Leu Glu Ala Cys Ser Trp Gly Pro Ala Leu Ser Leu
20 25 30

Leu Gly Ser Gly His Ser Leu Pro Gly Thr His Glu Gln Ala Ala Trp
35 40 45

Ser Arg Gly Cys Gly Gln His Gly Gln Ser Pro Thr Gln Lys Cys Lys
50 55 60

Ser Ser Lys Glu Pro Leu Ala Gln Ala Pro Pro His Gln Gly Phe Ala
65 70 75 80

Asp Val Leu Glu Arg Pro Thr Leu Glu Pro Phe Gly Val Leu Ala Pro
85 90 95

Pro Val Pro Ser Ala Leu Val Glu Ala Ala Ala Thr Ser Pro Pro Gln
100 105 110

Gly Ala Pro Arg Gly Ile Leu Trp Asp Arg Cys Pro Gln Ile Gln Val
115 120 125

Leu Glu Gly Gln Arg Val Arg Phe Pro Ser Gln Pro Gln His Pro Ser
130 135 140

His Leu Ala Pro Arg Gly Gly Cys Gly Trp Arg Pro Asp Ser Arg Pro

145	150	155	160
Leu Leu Pro Thr Pro Ser Gly Leu Ser Ser Phe Phe Pro Leu Asp Ala			
165	170	175	
Gln Cys Trp Pro Trp Arg Thr Val Ser Trp Arg Met Ala Val Gly Glu			
180	185	190	
Ala Val Phe Val Pro Leu Gln His Pro Pro Leu Leu His Gly Ser Pro			
195	200	205	
Ile Pro Lys Leu Leu Pro Gly Pro Leu Leu			
210	215		

<210> 494

<211> 349

<212> PRT

<213> Homo sapiens

<400> 494

Met Ala Met Ala Phe Thr Asp Leu Leu Asp Ala Leu Gly Ser Met Gly			
1	5	10	15
Arg Phe Gln Leu Asn His Thr Ala Leu Leu Leu Pro Cys Gly Leu			
20	25	30	
Leu Ala Cys His Asn Phe Leu Gln Asn Phe Thr Ala Ala Val Pro Pro			
35	40	45	
His His Cys Arg Gly Pro Ala Asn His Thr Glu Ala Ser Thr Asn Asp			
50	55	60	
Ser Gly Ala Trp Leu Arg Ala Thr Ile Pro Leu Asp Gln Leu Gly Ala			
65	70	75	80
Pro Glu Pro Cys Arg Arg Phe Thr Lys Pro Gln Trp Ala Leu Leu Ser			
85	90	95	

Pro Asn Ser Ser Ile Pro Gly Ala Ala Thr Glu Gly Cys Lys Asp Gly
 100 105 110
 Trp Val Tyr Asn Arg Ser Val Phe Pro Ser Thr Ile Val Met Glu Trp
 115 120 125
 Asp Leu Val Cys Glu Ala Arg Thr Leu Arg Asp Leu Ala Gln Ser Val
 130 135 140
 Tyr Met Ala Gly Val Leu Val Gly Ala Ala Val Phe Gly Ser Leu Ala
 145 150 155 160
 Asp Arg Leu Gly Cys Lys Gly Pro Leu Val Trp Ser Tyr Leu Gln Leu
 165 170 175
 Ala Ala Ser Gly Ala Ala Thr Ala Tyr Phe Ser Ser Phe Ser Ala Tyr
 180 185 190
 Cys Val Phe Arg Phe Leu Met Gly Met Thr Phe Ser Gly Ile Ile Leu
 195 200 205
 Asn Ser Val Ser Leu Val Ala Ser Arg Val Ile Pro Leu Ala Pro Pro
 210 215 220
 Ala Trp Gln Val Pro Val Ser Cys Thr Glu Ser Ala Glu Gly Gly Cys
 225 230 235 240
 Asn Glu Arg Glu Glu Gly Gly Arg Gly Lys Ala Asp Gln Gly Gly Asp
 245 250 255
 Glu Leu Leu His Pro Lys Arg Val Cys Lys Cys Leu His Leu Gln Leu
 260 265 270
 Asn Leu Gly Pro Leu Pro Asn Pro Gly His Pro Gln Gly His Met Leu
 275 280 285
 Ser His Gly Asp Leu Arg Gly Arg Gln Arg Ser Ser Gly Ser Gly Glu
 290 295 300
 Gln Gly Gly Ser Cys Glu Pro Glu Ser Arg Asn Gly Arg Leu Pro Ala
 305 310 315 320
 Val Ala Pro Ala Gly Leu Gly Leu Pro Phe Val His Leu Pro Leu Ser

325

330

335

Ala Arg Glu Lys Gln Ile Leu Ser Ser Lys Phe Gln Ser

340

345

<210> 495

<211> 421

<212> PRT

<213> Homo sapiens

<400> 495

Met Arg Tyr Ser Leu Ser Pro Asp Asn His Leu Glu Asp Gly Ile Met

1

5

10

15

Asn Met Ala Asn Phe Leu Arg Gly Phe Glu Glu Lys Gly Ile Lys Asn

20

25

30

Asp Arg Pro Glu Asp Gln Leu Ser Lys Glu Lys Lys Ile Leu Phe

35

40

45

Ser Phe Cys Glu Val Cys Asn Ile Gln Leu Asn Ser Ala Ala Gln Ala

50

55

60

Gln Val His Ser Asn Gly Lys Ser His Arg Lys Arg Val Lys Gln Leu

65

70

75

80

Ser Asp Gly Gln Pro Pro Pro Ala Gln Ala Ser Pro Ser Ser Asn

85

90

95

Ser Ser Thr Gly Ser Thr Cys His Thr Thr Leu Pro Ala Leu Val

100

105

110

Arg Thr Pro Thr Leu Met Met Gln Pro Ser Leu Asp Ile Lys Pro Phe

115

120

125

Met Ser Phe Pro Val Asp Ser Ser Ser Ala Val Gly Leu Phe Pro Asn

130

135

140

Phe Asn Thr Met Asp Pro Val Gln Lys Ala Val Ile Asn His Thr Phe
 145 150 155 160
 Gly Val Ser Ile Pro Pro Lys Lys Gln Val Ile Ser Cys Asn Val
 165 170 175
 Cys Gln Leu Arg Phe Asn Ser Asp Ser Gln Ala Glu Ala His Tyr Lys
 180 185 190
 Gly Ser Lys His Ala Lys Lys Val Lys Ala Leu Asp Ala Thr Lys Asn
 195 200 205
 Lys Pro Lys Met Val Pro Ser Lys Asp Ser Ala Lys Ala Asn Pro Ser
 210 215 220
 Cys Ser Ile Thr Pro Ile Thr Gly Asn Asn Ser Asp Lys Ser Glu Asp
 225 230 235 240
 Lys Gly Lys Leu Lys Ala Ser Ser Ser Ser Gln Pro Ser Ser Ser Glu
 245 250 255
 Ser Gly Ser Phe Leu Leu Lys Ser Gly Thr Thr Pro Leu Pro Pro Gly
 260 265 270
 Ala Ala Thr Ser Pro Ser Lys Ser Thr Asn Gly Ala Pro Gly Thr Val
 275 280 285
 Val Glu Ser Glu Glu Lys Ala Lys Lys Leu Leu Tyr Cys Ser Leu
 290 295 300
 Cys Lys Val Ala Val Asn Ser Leu Ser Gln Leu Glu Ala His Asn Thr
 305 310 315 320
 Gly Ser Lys His Lys Thr Met Val Glu Ala Arg Asn Gly Ala Gly Pro
 325 330 335
 Ile Lys Ser Tyr Pro Arg Pro Gly Ser Arg Leu Lys Met Gln Asn Gly
 340 345 350
 Ser Lys Gly Ser Gly Leu Gln Asn Lys Thr Phe His Cys Glu Ile Cys
 355 360 365
 Asp Val His Val Asn Ser Glu Ile Gln Leu Lys Gln His Ile Ser Ser

370	375	380	
Arg Arg His Lys Asp Arg Val Ala Gly Lys Pro Leu Lys Pro Lys Tyr			
385	390	395	400
Thr Pro Cys Lys Val Ile Gly Leu Leu Pro Lys Pro Leu Pro Pro Ala			
405	410	415	
Asn Arg Gln Leu Ser			
420			

<210> 496

<211> 277

<212> PRT

<213> Homo sapiens

<400> 496

Met Gly Lys Asn Leu Lys Gly Ile Leu Thr Thr Glu Asn Ile Leu Ser

1 5 10 15

Ile Asp Asn Ser Val Asn Lys Lys Asp Leu Ser Ile Cys Gly Ser Ser

20 25 30

Gly Glu Glu Phe Phe Asn Asn Cys Glu Val Leu Gln Cys Gly Phe Ser

35 40 45

Val Pro Arg Glu Asn Ile Arg Thr Arg His Lys Ile Cys Pro Cys Asp

50 55 60

Lys Cys Glu Lys Val Phe Pro Ser Ile Ser Lys Leu Lys Arg His Tyr

65 70 75 80

Leu Ile His Thr Gly Gln Arg Pro Phe Gly Cys Asn Ile Cys Gly Lys

85 90 95

Ser Phe Arg Gln Ser Ala His Leu Lys Arg His Glu Gln Thr His Asn

100 105 110

Glu Lys Ser Pro Tyr Ala Ser Leu Cys Gln Val Glu Phe Gly Asn Phe
 115 120 125
 Asn Asn Leu Ser Asn His Ser Gly Asn Asn Val Asn Tyr Asn Ala Ser
 130 135 140
 Gln Gln Cys Gln Ala Pro Gly Val Gln Lys Tyr Glu Val Ser Glu Ser
 145 150 155 160
 Asp Gln Met Ser Gly Val Lys Ala Glu Ser Gln Asp Phe Ile Pro Gly
 165 170 175
 Ser Thr Gly Gln Pro Cys Leu Pro Asn Val Leu Leu Glu Ser Glu Gln
 180 185 190
 Ser Asn Pro Phe Cys Ser Tyr Ser Glu His Gln Glu Lys Asn Asp Val
 195 200 205
 Phe Leu Tyr Arg Cys Ser Val Cys Ala Lys Ser Phe Arg Ser Pro Ser
 210 215 220
 Lys Leu Glu Arg His Tyr Leu Ile His Ala Gly Gln Lys Pro Phe Glu
 225 230 235 240
 Cys Ser Val Cys Gly Lys Thr Phe Arg Gln Ala Pro His Trp Lys Arg
 245 250 255
 His Gln Leu Thr His Phe Lys Glu Arg Pro Gln Gly Lys Val Val Ala
 260 265 270
 Leu Asp Ser Val Met
 275

<210> 497

<211> 933

<212> PRT

<213> Homo sapiens

<400> 497

Met Ala Trp Lys Thr Leu Pro Ile Tyr Leu Leu Leu Leu Ser Val
 1 5 10 15
 Phe Val Ile Gln Gln Val Ser Ser Gln Glu Leu Ser Cys Lys Gly Arg
 20 25 30
 Cys Phe Glu Ser Phe Glu Arg Gly Arg Glu Cys Asp Cys Asp Ala Gln
 35 40 45
 Cys Lys Lys Tyr Asp Lys Cys Cys Pro Asp Tyr Glu Ser Phe Cys Ala
 50 55 60
 Glu Val His Asn Pro Thr Ser Pro Pro Ser Ser Lys Lys Ala Pro Pro
 65 70 75 80
 Pro Ser Gly Ala Ser Gln Thr Ile Lys Ser Thr Thr Lys Arg Ser Pro
 85 90 95
 Lys Pro Pro Asn Lys Lys Thr Lys Lys Val Ile Glu Ser Glu Glu
 100 105 110
 Ile Thr Glu Glu His Ser Val Ser Glu Asn Gln Glu Ser Ser Ser Ser
 115 120 125
 Ser Ser Ser Ser Ser Ser Thr Ile Arg Lys Ile Lys Ser Ser
 130 135 140
 Lys Asn Ser Ala Ala Asn Arg Glu Leu Gln Lys Lys Leu Lys Val Lys
 145 150 155 160
 Asp Asn Lys Lys Asn Arg Thr Lys Lys Pro Thr Pro Lys Pro Pro
 165 170 175
 Val Val Asp Glu Ala Gly Ser Gly Leu Asp Asn Gly Asp Phe Lys Val
 180 185 190
 Thr Thr Pro Asp Thr Ser Thr Thr Gln His Asn Lys Val Ser Thr Ser
 195 200 205
 Pro Lys Ile Thr Thr Ala Lys Pro Ile Asn Pro Arg Pro Ser Leu Pro
 210 215 220

Pro Asn Ser Asp Thr Ser Lys Glu Thr Ser Leu Thr Val Asn Lys Glu
 225 230 235 240
 Thr Thr Val Glu Thr Lys Glu Thr Thr Thr Asn Lys Gln Thr Ser
 245 250 255
 Thr Asp Gly Lys Glu Lys Thr Thr Ser Ala Lys Glu Thr Gln Ser Ile
 260 265 270
 Glu Lys Thr Ser Ala Lys Asp Leu Ala Pro Thr Ser Lys Val Leu Ala
 275 280 285
 Lys Pro Thr Pro Lys Ala Glu Thr Thr Lys Gly Pro Ala Leu Thr
 290 295 300
 Thr Pro Lys Glu Pro Thr Pro Thr Pro Lys Glu Pro Ala Ser Thr
 305 310 315 320
 Thr Pro Lys Glu Pro Thr Pro Thr Ile Lys Ser Ala Pro Thr Thr
 325 330 335
 Pro Lys Glu Pro Ala Pro Thr Thr Lys Ser Ala Pro Thr Thr Pro
 340 345 350
 Lys Glu Pro Ala Pro Thr Thr Lys Glu Pro Ala Pro Thr Thr Pro
 355 360 365
 Lys Glu Pro Ala Pro Thr Pro Glu Thr Pro Pro Pro Thr Thr Ser
 370 375 380
 Glu Val Ser Thr Pro Thr Thr Lys Glu Pro Thr Thr Ile His Lys
 385 390 395 400
 Ser Pro Asp Glu Ser Thr Pro Glu Leu Ser Ala Glu Pro Thr Pro Lys
 405 410 415
 Ala Leu Glu Asn Ser Pro Lys Glu Pro Gly Val Pro Thr Thr Lys Thr
 420 425 430
 Pro Ala Ala Thr Lys Pro Glu Met Thr Thr Ala Lys Asp Lys Thr
 435 440 445
 Thr Glu Arg Asp Leu Arg Thr Thr Pro Glu Thr Thr Ala Ala Pro

450	455	460
Lys Met Thr Lys Glu Thr Ala Thr Thr Glu Lys Thr Thr Glu Ser		
465	470	475
Lys Ile Thr Ala Thr Thr Gln Val Thr Ser Thr Thr Gln Asp		
485	490	495
Thr Thr Pro Phe Lys Ile Thr Thr Leu Lys Thr Thr Thr Leu Ala Pro		
500	505	510
Lys Val Thr Thr Lys Lys Thr Ile Thr Thr Thr Glu Ile Met Asn		
515	520	525
Lys Pro Glu Glu Thr Ala Lys Pro Lys Asp Arg Ala Thr Asn Ser Lys		
530	535	540
Ala Thr Thr Pro Lys Pro Gln Lys Pro Thr Lys Ala Pro Lys Lys Pro		
545	550	555
Thr Ser Thr Lys Lys Pro Lys Thr Met Pro Arg Val Arg Lys Pro Lys		
565	570	575
Thr Thr Pro Thr Pro Arg Lys Met Thr Ser Thr Met Pro Glu Leu Asn		
580	585	590
Pro Thr Ser Arg Ile Ala Glu Ala Met Leu Gln Thr Thr Arg Pro		
595	600	605
Asn Gln Thr Pro Asn Ser Lys Leu Val Glu Val Asn Pro Lys Ser Glu		
610	615	620
Asp Ala Gly Gly Ala Glu Gly Glu Thr Pro His Met Leu Leu Arg Pro		
625	630	635
His Val Phe Met Pro Glu Val Thr Pro Asp Met Asp Tyr Leu Pro Arg		
645	650	655
Val Pro Asn Gln Gly Ile Ile Ile Asn Pro Met Leu Ser Asp Glu Thr		
660	665	670
Asn Ile Cys Asn Gly Lys Pro Val Asp Gly Leu Thr Thr Leu Arg Asn		
675	680	685

Gly Thr Leu Val Ala Phe Arg Gly His Tyr Phe Trp Met Leu Ser Pro
 690 695 700
 Phe Ser Pro Pro Ser Pro Ala Arg Arg Ile Thr Glu Val Trp Gly Ile
 705 710 715 720
 Pro Ser Pro Ile Asp Thr Val Phe Thr Arg Cys Asn Cys Glu Gly Lys
 725 730 735
 Thr Phe Phe Lys Asp Ser Gln Tyr Trp Arg Phe Thr Asn Asp Ile
 740 745 750
 Lys Asp Ala Gly Tyr Pro Lys Pro Ile Phe Lys Gly Phe Gly Gly Leu
 755 760 765
 Thr Gly Gln Ile Val Ala Ala Leu Ser Thr Ala Lys Tyr Lys Asn Trp
 770 775 780
 Pro Glu Ser Val Tyr Phe Phe Lys Arg Gly Gly Ser Ile Gln Gln Tyr
 785 790 795 800
 Ile Tyr Lys Gln Glu Pro Val Gln Lys Cys Pro Gly Arg Arg Pro Ala
 805 810 815
 Leu Asn Tyr Pro Val Tyr Gly Glu Thr Thr Gln Val Arg Arg Arg Arg
 820 825 830
 Phe Glu Arg Ala Ile Gly Pro Ser Gln Thr His Thr Ile Arg Ile Gln
 835 840 845
 Tyr Ser Pro Ala Arg Leu Ala Tyr Gln Asp Lys Gly Val Leu His Asn
 850 855 860
 Glu Val Lys Val Ser Ile Leu Trp Arg Gly Leu Pro Asn Val Val Thr
 865 870 875 880
 Ser Ala Ile Ser Leu Pro Asn Ile Arg Lys Pro Asp Gly Tyr Asp Tyr
 885 890 895
 Tyr Ala Phe Ser Lys Asp Gln Tyr Tyr Asn Ile Asp Val Pro Ser Arg
 900 905 910
 Thr Ala Arg Ala Ile Thr Thr Arg Ser Gly Gln Thr Leu Ser Lys Val

915 920 925
Trp Tyr Asn Cys Pro
930

<210> 498
<211> 216
<212> PRT
<213> Homo sapiens

<400> 498
Met Arg Trp Trp His Arg Cys Gly Gln Pro Gly Thr Asp Val Val Leu
1 5 10 15
Thr Gly Lys Asn Leu Pro Arg Pro Thr Leu Ser Thr Pro Ala Glu Ser
20 25 30
Ser Gln Pro Gly Gln Gly Ala His Val Gly Pro Asn Ala His Ala Pro
35 40 45
His Ser Cys Gly Glu Leu Thr Ala Arg Pro Arg Gly Ala Arg Gly Ala
50 55 60
Gln Arg Pro Arg Ser Pro Leu Leu Arg Arg Ala His Ser Gln Ala Arg
65 70 75 80
Gly Arg Thr Trp Gly Pro Thr Pro Thr Leu Pro Thr Pro Ala Glu Ser
85 90 95
Ser Gln Pro Gly Gln Gly Ala His Val Gly Pro Asn Ala His Ala Pro
100 105 110
His Ser Cys Gly Glu Leu Thr Ala Arg Pro Gly Gly Ala Arg Gly Ala
115 120 125
Gln Arg Pro His Ser Pro Leu Leu Arg Arg Ala His Ser Gln Ala Arg
130 135 140

Gly Arg Thr Trp Gly Pro Thr Phe Arg Asn Lys Ile Ile Val Tyr Ser
 145 150 155 160
 Phe Leu Phe Phe Leu Lys Ser Val Phe Leu Leu Arg Thr Pro Asp Val
 165 170 175
 Cys Gly Ser Glu Ala Gln Trp Ala Tyr Ser Tyr Leu Thr Trp Gln Thr
 180 185 190
 Trp Lys Trp Lys Leu Leu Cys Ile Thr Arg Ile Ser Arg Ala Ser Ala
 195 200 205
 Ser Cys Trp Pro Asp Arg Val Pro
 210 215

<210> 499

<211> 904

<212> PRT

<213> Homo sapiens

<400> 499

Met Ala Glu Ala Leu Leu Ala Cys Cys Pro Gly Asp Gln Lys Pro Gly
 1 5 10 15
 Ile Leu Ala Arg Leu Lys Asp Ile Lys Ala Gln Trp Glu Glu Thr Val
 20 25 30
 Thr Tyr Met Thr His Cys His Ser Arg Ile Glu Trp Val Trp Leu His
 35 40 45
 Trp Ser Glu Tyr Leu Leu Ala Arg Asp Glu Phe Tyr Arg Trp Phe Gln
 50 55 60
 Lys Met Met Val Thr Leu Glu Pro His Ile Glu Leu Gln Leu Gly Leu
 65 70 75 80
 Lys Glu Lys Gln Trp Gln Leu Ser His Ala Gln Val Leu Leu His Asn

85	90	95
Val Asp Asn Gln Ala Val Leu Leu Asp Arg Leu Leu Glu Glu Ala Ala		
100	105	110
Ser Leu Phe Asn Arg Ile Gly Asp Pro Ser Val Asp Glu Asp Ala Gln		
115	120	125
Lys Arg Met Lys Ala Glu Tyr Asp Ala Val Lys Ala Lys Ala Gln Lys		
130	135	140
Arg Val Asp Leu Leu Glu Gln Val Ala Arg Glu His Glu Glu Tyr Gln		
145	150	155
Ala Gly Val Asp Glu Phe Gln Leu Trp Leu Lys Ala Val Val Glu Lys		
165	170	175
Val Asn Gly Cys Leu Gly Arg Asn Cys Lys Leu Pro Ile Thr Gln Arg		
180	185	190
Leu Ser Thr Leu Gln Asp Ile Ala Lys Asp Phe Pro Arg Gly Glu Glu		
195	200	205
Ser Leu Glu Thr Leu Glu Glu Gln Ser Ala Gly Val Ile Arg Asn Thr		
210	215	220
Ser Pro Leu Gly Ala Glu Lys Ile Thr Gly Glu Leu Glu Glu Met Arg		
225	230	235
Lys Val Leu Glu Lys Leu Arg Ala Leu Trp Glu Glu Glu Glu Glu Arg		
245	250	255
Leu Arg Gly Leu Leu Arg Ser Arg Gly Ala Trp Glu Gln Gln Ile Lys		
260	265	270
Gln Leu Glu Ala Glu Leu Ser Glu Phe Arg Met Val Leu Gln Arg Leu		
275	280	285
Ala Gln Glu Gly Leu Gln Pro Ala Ala Lys Ala Gly Thr Glu Asp Glu		
290	295	300
Leu Val Ala His Trp Arg Arg Tyr Ser Ala Thr Arg Ala Ala Leu Ala		
305	310	315
320		

Ser Glu Glu Pro Arg Val Asp Arg Leu Gln Ala Gln Leu Lys Glu Leu
 325 330 335
 Ile Val Phe Pro His Asn Leu Lys Pro Leu Ser Asp Ser Val Ile Ala
 340 345 350
 Thr Ile Gln Glu Tyr Gln Ser Leu Lys Val Lys Ser Ala Arg Leu Arg
 355 360 365
 Asn Ala Ala Ala Val Glu Leu Trp Gln His Phe Gln Arg Pro Leu Gln
 370 375 380
 Asp Leu Gln Leu Trp Lys Ala Leu Ala Gln Arg Leu Leu Glu Val Thr
 385 390 395 400
 Ala Ser Leu Pro Asp Leu Pro Ser Leu His Thr Phe Leu Pro Gln Ile
 405 410 415
 Glu Ala Ala Leu Met Glu Ser Ser Arg Leu Lys Glu Leu Leu Thr Met
 420 425 430
 Leu Gln Leu Lys Lys Asp Leu Leu Ile Gly Ile Phe Gly Gln Glu Arg
 435 440 445
 Ala Thr Ala Leu Leu Glu Gln Val Ala Gly Ser Met Arg Asp Arg Asp
 450 455 460
 Leu Leu His Asn Ser Leu Leu Gln Arg Lys Ser Lys Leu Gln Ser Leu
 465 470 475 480
 Leu Ala Gln His Lys Asp Phe Gly Ala Ala Phe Glu Pro Leu Gln Arg
 485 490 495
 Lys Leu Leu Asp Leu Gln Val Arg Val Gln Ala Glu Lys Gly Leu Gln
 500 505 510
 Arg Asp Leu Pro Gly Lys Gln Ala Gln Leu Ser Arg Leu Gln Gly Leu
 515 520 525
 Gln Glu Glu Gly Leu Asp Leu Gly Ala Gln Met Glu Ala Ala Arg Pro
 530 535 540
 Leu Val Gln Glu Asn Pro Asn His Gln His Lys Met Asp Gln Leu Ser

545	550	555	560
Ser Asp Phe Gln Ala Leu Gln Arg Ser Leu Glu Asp Leu Val Asp Arg			
565	570	575	
Cys Arg Gln Ser Val Gln Glu His Cys Thr Phe Ser His Gln Leu Leu			
580	585	590	
Glu Leu Arg Gln Trp Ile Val Val Thr Met Gln Lys Leu Glu Ala His			
595	600	605	
Arg Gly Glu Ala Gly Pro Gly Asp Ala Glu Ser Gln Glu Ala Glu Phe			
610	615	620	
Glu Arg Leu Val Ala Glu Phe Pro Glu Lys Glu Ala Gln Leu Ser Leu			
625	630	635	640
Val Glu Ala Gln Gly Trp Leu Val Met Glu Lys Ser Ser Pro Glu Gly			
645	650	655	
Ala Ala Val Val Gln Glu Glu Leu Arg Glu Leu Ala Glu Ser Trp Arg			
660	665	670	
Ala Leu Arg Leu Leu Glu Glu Ser Leu Leu Ser Leu Ile Arg Asn Trp			
675	680	685	
His Leu Gln Arg Met Glu Val Asp Ser Gly Lys Lys Met Val Phe Thr			
690	695	700	
Asn Asn Ile Pro Lys Ser Gly Phe Leu Ile Asn Pro Met Asp Pro Ile			
705	710	715	720
Pro Arg His Arg Arg Glu Glu Glu Gly Ser His Glu Asp Phe Ser			
725	730	735	
Gln Leu Leu Arg Asn Phe Gly Gln Trp Leu Gln Val Glu Asn Ser Lys			
740	745	750	
Leu Val Arg Ile Ile Ala Met Arg Thr Ser Thr Ala Glu Asp Leu Arg			
755	760	765	
Thr Arg Lys Ser Lys Leu Gln Glu Leu Glu Ala Arg Val Pro Glu Gly			
770	775	780	

Gln His Leu Phe Glu Asn Leu Leu Arg Leu Gly Pro Ala Arg Gly Thr
 785 790 795 800
 Ser Asp Glu Leu Glu Asp Leu Arg Tyr Gln Trp Met Leu Tyr Lys Ser
 805 810 815
 Lys Leu Lys Asp Ser Gly His Leu Leu Thr Gln Ser Ser Pro Gly Glu
 820 825 830
 Pro Thr Gly Phe Gln Lys Thr Arg Arg Trp Arg Gly Leu Gly Ser Leu
 835 840 845
 Phe Arg Arg Ala Cys Cys Val Ala Leu Pro Leu Gln Leu Leu Leu
 850 855 860
 Leu Phe Leu Leu Leu Phe Leu Leu Pro Ile Arg Glu Glu Asp Arg
 865 870 875 880
 Ser Cys Thr Leu Ala Asn Asn Phe Ala Arg Ser Phe Thr Leu Met Leu
 885 890 895
 Arg Tyr Asn Gly Pro Pro Pro Thr
 900

<210> 500

<211> 164

<212> PRT

<213> Homo sapiens

<400> 500

Met Ser Glu Pro Ser Pro Cys Pro Pro Glu Gly Val Gln Leu Cys Gly
 1 5 10 15
 Pro Ala Leu Tyr Arg Leu Val Pro Cys Val Cys Ala Val Ser Val Cys
 20 25 30
 Leu Leu Pro Gln Val Leu Lys Lys Tyr Pro Arg Leu Trp Cys Met Thr

35	40	45
Lys Pro Pro Ser Arg Arg Pro Lys Leu Tyr Ile Val Asn Leu Gln Trp		
50	55	60
Thr Pro Lys Asp Asp Trp Ala Ala Leu Lys Leu His Gly Lys Cys Asp		
65	70	75
Asp Val Met Arg Leu Leu Met Ala Glu Leu Gly Leu Glu Ile Pro Ala		
85	90	95
Tyr Ser Arg Trp Gln Asp Pro Ile Phe Ser Leu Ala Thr Pro Leu Arg		
100	105	110
Ala Gly Glu Glu Gly Ser His Ser Arg Lys Ser Leu Cys Arg Ser Arg		
115	120	125
Glu Glu Ala Pro Pro Gly Asp Arg Gly Ala Pro Leu Ser Ser Ala Pro		
130	135	140
Ile Leu Gly Gly Trp Phe Gly Arg Gly Cys Thr Lys Arg Thr Lys Arg		
145	150	155
Lys Lys Val Thr		

<210> 501

<211> 477

<212> PRT

<213> Homo sapiens

<400> 501

Met Lys Leu Ile Arg Ser Ser Ser Cys His Val Gly Ser Ala Arg Lys

1

5

10

15

Leu His His Trp Arg Ala Gly Gln Thr Glu Pro Gly Trp Ala Gly Thr

20

25

30

Arg His Asp Ser Pro Val Pro Leu Pro Pro Arg Gly Gly Leu Ala Ala
 35 40 45
 Asp Asn Val Leu Leu Ser Ser Asp Gly Ser His Ala Ala Leu Cys Asp
 50 55 60
 Phe Gly His Ala Val Cys Leu Gln Pro Asp Gly Leu Gly Lys Ser Leu
 65 70 75 80
 Leu Thr Gly Asp Tyr Ile Pro Gly Thr Glu Thr His Met Ala Pro Glu
 85 90 95
 Val Val Leu Gly Arg Ser Cys Asp Ala Lys Val Asp Val Trp Ser Ser
 100 105 110
 Cys Cys Met Met Leu His Met Leu Asn Gly Cys His Pro Trp Thr Gln
 115 120 125
 Phe Phe Arg Gly Pro Leu Cys Leu Lys Ile Ala Ser Glu Pro Pro Pro
 130 135 140
 Val Arg Glu Ile Pro Pro Ser Cys Ala Pro Leu Thr Ala Gln Ala Ile
 145 150 155 160
 Gln Glu Gly Leu Arg Lys Glu Pro Ile His Arg Val Ser Ala Ala Glu
 165 170 175
 Leu Gly Gly Lys Val Asn Arg Ala Leu Gln Gln Val Gly Gly Leu Lys
 180 185 190
 Ser Pro Trp Arg Gly Glu Tyr Lys Glu Pro Arg His Pro Pro Pro Asn
 195 200 205
 Gln Ala Asn Tyr His Gln Thr Leu His Ala Gln Pro Arg Glu Leu Ser
 210 215 220
 Pro Arg Ala Pro Gly Pro Arg Pro Ala Glu Glu Thr Thr Gly Arg Ala
 225 230 235 240
 Pro Lys Leu Gln Pro Pro Leu Pro Pro Glu Pro Pro Glu Pro Asn Lys
 245 250 255
 Ser Pro Pro Leu Thr Leu Ser Lys Glu Glu Ser Gly Met Trp Glu Pro

260	265	270
Leu Pro Leu Ser Ser Leu Glu Pro Ala Pro Ala Arg Asn Pro Ser Ser		
275	280	285
Pro Glu Arg Lys Ala Thr Val Pro Glu Gln Glu Leu Gln Gln Leu Glu		
290	295	300
Ile Glu Leu Phe Leu Asn Ser Leu Ser Gln Pro Phe Ser Leu Glu Glu		
305	310	315
Gln Glu Gln Ile Leu Ser Cys Leu Ser Ile Asp Ser Leu Ser Leu Ser		
325	330	335
Asp Asp Ser Glu Lys Asn Pro Ser Lys Ala Ser Gln Ser Ser Arg Asp		
340	345	350
Thr Leu Ser Ser Gly Val His Ser Trp Ser Ser Gln Ala Glu Ala Arg		
355	360	365
Ser Ser Ser Trp Asn Met Val Leu Ala Arg Gly Arg Pro Thr Asp Thr		
370	375	380
Pro Ser Tyr Phe Asn Gly Val Lys Val Gln Ile Gln Ser Leu Asn Gly		
385	390	395
Glu His Leu His Ile Arg Glu Phe His Arg Val Lys Val Gly Asp Ile		
405	410	415
Ala Thr Gly Ile Ser Ser Gln Ile Pro Ala Ala Ala Phe Ser Leu Val		
420	425	430
Thr Lys Asp Gly Gln Pro Val Arg Tyr Asp Met Glu Val Pro Asp Ser		
435	440	445
Gly Ile Asp Leu Gln Cys Thr Leu Ala Pro Asp Gly Ser Phe Ala Trp		
450	455	460
Ser Trp Arg Val Lys His Gly Gln Leu Glu Asn Arg Pro		
465	470	475

<210> 502

<211> 486

<212> PRT

<213> Homo sapiens

<400> 502

Met Gly Ser Glu Lys Asp Ser Glu Ser Pro Arg Ser Thr Ser Leu His

1

5

10

15

Ala Ala Ala Pro Asp Pro Lys Cys Arg Ser Gly Gly Arg Arg Arg Arg

20

25

30

Leu Leu Ser Cys Pro His Arg Ser Cys Arg Asp Cys Leu Arg His Tyr

35

40

45

Leu Arg Leu Glu Ile Ser Glu Ser Arg Val Pro Ile Ser Cys Pro Glu

50

55

60

Cys Ser Glu Arg Leu Asn Pro His Asp Ile Arg Leu Leu Ala Asp

65

70

75

80

Pro Pro Leu Met His Lys Tyr Glu Glu Phe Met Leu Arg Arg Tyr Leu

85

90

95

Ala Ser Asp Pro Asp Cys Arg Trp Cys Pro Ala Pro Asp Cys Gly Tyr

100

105

110

Ala Val Ile Ala Tyr Gly Cys Ala Ser Cys Pro Lys Leu Thr Cys Glu

115

120

125

Arg Glu Gly Cys Gln Thr Glu Phe Cys Tyr His Cys Lys Gln Ile Trp

130

135

140

His Pro Asn Gln Thr Cys Asp Met Ala Arg Gln Gln Arg Ala Gln Thr

145

150

155

160

Leu Arg Val Arg Thr Lys His Thr Ser Gly Leu Ser Tyr Gly Gln Glu

165

170

175

Ser Gly Pro Asp Asp Ile Lys Pro Cys Pro Arg Cys Ser Ala Tyr Ile

180	185	190
Ile Lys Met Asn Asp Gly Ser Cys Asn His Met Thr Cys Ala Val Cys		
195	200	205
Gly Cys Glu Phe Cys Trp Leu Cys Met Lys Glu Ile Ser Asp Leu His		
210	215	220
Tyr Leu Ser Pro Ser Gly Cys Thr Phe Trp Gly Lys Lys Pro Trp Ser		
225	230	235
Arg Lys Lys Lys Ile Leu Trp Gln Leu Gly Thr Leu Ile Gly Ala Pro		
245	250	255
Val Gly Ile Ser Leu Ile Ala Gly Ile Ala Ile Pro Ala Met Val Ile		
260	265	270
Gly Ile Pro Val Tyr Val Gly Arg Lys Ile His Ser Arg Tyr Glu Gly		
275	280	285
Arg Lys Thr Ser Lys His Lys Arg Asn Leu Ala Ile Thr Gly Gly Val		
290	295	300
Thr Leu Ser Val Ile Ala Ser Pro Val Ile Ala Ala Val Ser Val Gly		
305	310	315
Ile Gly Val Pro Ile Met Leu Ala Tyr Val Tyr Gly Val Val Pro Ile		
325	330	335
Ser Leu Cys Arg Gly Gly Cys Gly Val Ser Thr Ala Asn Gly Lys		
340	345	350
Gly Val Lys Ile Glu Phe Asp Glu Asp Asp Gly Pro Ile Thr Val Ala		
355	360	365
Asp Ala Trp Arg Ala Leu Lys Asn Pro Ser Ile Gly Glu Ser Ser Ile		
370	375	380
Glu Gly Leu Thr Ser Val Leu Ser Thr Ser Gly Ser Pro Thr Asp Gly		
385	390	395
Leu Ser Val Met Gln Gly Pro Tyr Ser Glu Thr Ala Ser Phe Ala Ala		
405	410	415

Leu Ser Gly Gly Thr Leu Ser Gly Gly Ile Leu Ser Ser Gly Lys Gly
 420 425 430
 Lys Tyr Ser Arg Leu Glu Val Gln Ala Asp Val Gln Lys Glu Ile Phe
 435 440 445
 Pro Lys Asp Thr Ala Ser Leu Gly Ala Ile Ser Asp Asn Ala Ser Thr
 450 455 460
 Arg Ala Met Ala Gly Ser Ile Ile Ser Ser Tyr Asn Pro Gln Asp Arg
 465 470 475 480
 Phe Ser Met Ile His Ala
 485

<210> 503

<211> 492

<212> PRT

<213> Homo sapiens

<400> 503

Met Ala Met Ala Leu Pro Met Pro Gly Pro Gln Glu Ala Val Val Phe
 1 5 10 15

Glu Asp Val Ala Val Tyr Phe Thr Arg Ile Glu Trp Ser Cys Leu Ala
 20 25 30

Pro Asp Gln Gln Ala Leu Tyr Arg Asp Val Met Leu Glu Asn Tyr Gly
 35 40 45

Asn Leu Ala Ser Leu Gly Phe Leu Val Ala Lys Pro Ala Leu Ile Ser
 50 55 60

Leu Leu Glu Gln Gly Glu Glu Pro Gly Ala Leu Ile Leu Gln Val Ala
 65 70 75 80

Glu Gln Ser Val Ala Lys Ala Ser Leu Cys Thr Asp Ser Arg Met Glu

85	90	95
Ala Gly Ile Met Glu Ser Pro Leu Gln Arg Lys Leu Ser Arg Gln Ala		
100	105	110
Gly Leu Pro Gly Thr Val Trp Gly Cys Leu Pro Trp Gly His Pro Val		
115	120	125
Gly Gly His Pro Ala Pro Pro His Pro His Gly Gly Pro Glu Asp Gly		
130	135	140
Ser Asp Lys Pro Thr His Pro Arg Ala Arg Glu His Ser Ala Ser Pro		
145	150	155
Arg Val Leu Gln Glu Asp Leu Gly Arg Pro Val Gly Ser Ser Ala Pro		
165	170	175
Arg Tyr Arg Cys Val Cys Gly Lys Ala Phe Arg Tyr Asn Ser Leu Leu		
180	185	190
Leu Arg His Gln Ile Val His Thr Gly Ala Lys Pro Phe Gln Cys Thr		
195	200	205
Glu Cys Gly Lys Ala Phe Lys Gln Ser Ser Ile Leu Leu Arg His Gln		
210	215	220
Leu Ile His Thr Glu Glu Lys Pro Phe Gln Cys Gly Glu Cys Gly Lys		
225	230	235
Ala Phe Arg Gln Ser Thr Gln Leu Ala Ala His His Arg Val His Thr		
245	250	255
Arg Glu Arg Pro Tyr Ala Cys Gly Glu Cys Gly Lys Ala Phe Ser Arg		
260	265	270
Ser Ser Arg Leu Leu Gln His Gln Lys Phe His Thr Gly Glu Lys Pro		
275	280	285
Phe Ala Cys Thr Glu Cys Gly Lys Ala Phe Cys Arg Arg Phe Thr Leu		
290	295	300
Asn Glu His Gly Arg Ile His Ser Gly Glu Arg Pro Tyr Arg Cys Leu		
305	310	315
320		

Arg Cys Gly Gln Arg Phe Ile Arg Gly Ser Ser Leu Leu Lys His His
 325 330 335
 Arg Leu His Ala Gln Glu Gly Ala Gln Asp Gly Gly Ala Gly Gln Gly
 340 345 350
 Ala Leu Leu Gly Ala Ala Gln Arg Pro Gln Ala Gly Asp Pro Pro His
 355 360 365
 Glu Cys Pro Val Cys Gly Arg Pro Phe Arg His Asn Ser Leu Leu Leu
 370 375 380
 Leu His Leu Arg Leu His Thr Gly Glu Lys Pro Phe Glu Cys Ala Glu
 385 390 395 400
 Cys Gly Lys Ala Phe Gly Arg Lys Ser Asn Leu Thr Leu His Gln Lys
 405 410 415
 Ile His Thr Lys Glu Lys Pro Phe Ala Cys Thr Glu Cys Gly Lys Ala
 420 425 430
 Phe Arg Arg Ser Tyr Thr Leu Asn Glu His Tyr Arg Leu His Ser Gly
 435 440 445
 Glu Arg Pro Tyr Arg Cys Arg Ala Cys Gly Arg Ala Cys Ser Arg Leu
 450 455 460
 Ser Thr Leu Ile Gln His Gln Lys Val His Gly Arg Glu Pro Gly Glu
 465 470 475 480
 Asp Thr Glu Gly Arg Arg Ala Pro Cys Trp Ala Ser
 485 490

<210> 504

<211> 232

<212> PRT

<213> Homo sapiens

<400> 504

Met Ile Arg Lys Val Lys Val Glu Asp Glu Asp Gln Glu Ala Glu Glu
 1 5 10 15
 Glu Val Glu Trp Pro Gln His Leu Ser Leu Leu Pro Ser Pro Phe Pro
 20 25 30
 Ala Pro Asp Leu Gly His Leu Ala Ala Ala Tyr Lys Leu Glu Pro Gly
 35 40 45
 Ala Pro Gly Ala Leu Ser Gly Leu Ala Leu Ser Gly Trp Gly Pro Met
 50 55 60
 Pro Glu Lys Pro Tyr Gly Cys Gly Glu Cys Glu Arg Arg Phe Arg Asp
 65 70 75 80
 Gln Leu Thr Leu Arg Leu His Gln Arg Leu His Arg Gly Glu Gly Pro
 85 90 95
 Cys Ala Cys Pro Ser Leu Val Arg Ser Pro Arg Gly Gly Ala Ala Pro
 100 105 110
 Ala Leu Leu Leu Ser Leu Val Leu Thr Arg Thr Leu Ser Cys Pro Gln
 115 120 125
 Phe Arg Glu Ala Arg Ala Met Arg Pro Pro Gly Val Ser Lys Ala Thr
 130 135 140
 Trp Ala Ala Ala Arg Arg Phe Gly Arg Arg Gly Thr Pro Val Ser Phe
 145 150 155 160
 Pro Gln Cys Leu Arg Pro His Ser Ile Pro Ser Ser Asp Leu Leu Gly
 165 170 175
 Gln Arg Leu Ser Glu Pro Leu Leu Gly Thr Ala Glu Leu Lys Phe Leu
 180 185 190
 Glu Gly Ser His Pro Gly Ala Pro Leu Glu Ser Arg Tyr Phe Pro Asp
 195 200 205
 Pro Ala Arg Pro Gln Pro Gly Gln Glu Arg Val Val Ile Tyr Val Leu
 210 215 220

Lys Val Ser Leu Lys Leu Lys Ser

225 230

<210> 505

<211> 158

<212> PRT

<213> Homo sapiens

<400> 505

Met Gly Arg Ser Pro Arg Lys Ile Asp Gln Phe Cys Asn Ser Ser Asn

1 5 10 15

Met Val His Gly Ser Val Thr Phe Arg Asp Val Ala Ile Asp Phe Ser

20 25 30

Gln Glu Glu Trp Glu Cys Leu Gln Pro Asp Gln Arg Thr Leu Tyr Arg

35 40 45

Asp Val Met Leu Glu Asn Tyr Ser His Leu Ile Ser Leu Gly Ser Ser

50 55 60

Ile Ser Lys Pro Asp Val Ile Thr Leu Leu Glu Gln Glu Lys Glu Pro

65 70 75 80

Trp Met Val Val Arg Lys Glu Thr Ser Arg Arg Tyr Pro Asp Leu Glu

85 90 95

Leu Lys Tyr Gly Pro Glu Lys Val Ser Pro Glu Asn Asp Thr Ser Glu

100 105 110

Val Asn Leu Pro Lys Gln Ile Ser Ser Leu Ala Ser Lys Pro Ser Phe

115 120 125

Thr Ala Ile His Ile Gln Arg Arg Ile His Cys Arg Ile Cys Ile Ala

130 135 140

Phe Gly Tyr Leu Ser Leu Val Tyr Cys Ser Leu Glu Ile Leu

145

150

155

<210> 506

<211> 296

<212> PRT

<213> Homo sapiens

<400> 506

Met Ala Gln Arg Val Lys Phe Pro Thr Asp Thr Leu Gln Glu Leu Leu

1

5

10

15

Asp Val His Ala Ala Cys Glu Arg Glu Ala Ile Ala Ile Phe Met Glu

20

25

30

His Ser Phe Lys Asp Glu Asn Gln Glu Phe Gln Lys Lys Phe Met Glu

35

40

45

Thr Thr Met Asn Lys Gly Asp Phe Leu Leu Gln Asn Glu Glu Ser

50

55

60

Ser Val Gln Tyr Cys Gln Ala Lys Leu Asn Glu Leu Ser Lys Gly Leu

65

70

75

80

Met Glu Ser Ile Ser Ala Gly Ser Phe Ser Val Pro Gly Gly His Lys

85

90

95

Leu Tyr Met Glu Thr Lys Glu Arg Ile Glu Gln Asp Tyr Trp Gln Val

100

105

110

Pro Arg Lys Gly Val Lys Ala Lys Glu Val Phe Gln Arg Phe Leu Glu

115

120

125

Ser Gln Met Val Ile Glu Glu Ser Ile Leu Gln Ser Asp Lys Ala Leu

130

135

140

Thr Asp Arg Glu Lys Ala Val Ala Val Asp Arg Ala Lys Lys Glu Ala

145

150

155

160

Ala Glu Lys Glu Gln Glu Leu Leu Lys Gln Lys Leu Gln Glu Gln Gln
 165 170 175
 Gln Gln Met Glu Ala Gln Val Lys Ser Arg Lys Glu Asn Ile Ala Gln
 180 185 190
 Leu Lys Glu Lys Leu Gln Met Glu Arg Glu His Leu Leu Arg Glu Gln
 195 200 205
 Ile Met Met Leu Glu His Thr Gln Lys Val Gln Asn Asp Trp Leu His
 210 215 220
 Glu Gly Phe Lys Lys Tyr Glu Glu Met Asn Ala Glu Ile Ser Gln
 225 230 235 240
 Phe Lys Arg Met Ile Asp Thr Thr Lys Asn Asp Asp Thr Pro Trp Ile
 245 250 255
 Ala Arg Thr Leu Asp Asn Leu Ala Asp Glu Leu Thr Ala Ile Leu Ser
 260 265 270
 Ala Pro Ala Lys Leu Ile Gly His Gly Val Lys Gly Val Ser Ser Leu
 275 280 285
 Phe Lys Lys His Lys Leu Pro Phe
 290 295

<210> 507
 <211> 153
 <212> PRT
 <213> Homo sapiens

<400> 507
 Met Pro Arg Leu Pro Ala His Arg His Ile Pro Ser Phe Asn Pro Arg
 1 5 10 15
 Gly Trp Glu Pro Asn Lys Leu Trp Gln Thr Asp Val Thr His Ile Pro

20	25	30
Glu Phe Gly Lys Leu Arg Tyr Val His Val Ser Ile Asp Leu Ile Ser		
35	40	45
Ala Asn Ala Leu Pro Gly Glu Ser Thr Gly Tyr Val Thr Lys His Leu		
50	55	60
Leu Leu Thr Phe Ala Phe Met Gly Gln Pro Thr Lys Ile Lys Thr Asn		
65	70	75
Asn Asp Leu Ala Tyr Ala Ser Ser Gln Phe Gln Gln Phe Cys His Met		
85	90	95
Trp Asn Ile Gln His Ser Thr Gly Ile Pro Tyr Asn Pro Gln Gly Gln		
100	105	110
Ala Ile Val Glu Cys Ala His Ser Thr Leu Lys Asn Met Leu Lys Lys		
115	120	125
Gln Lys Arg Gly Val Trp Val Arg Thr Leu Gln His Tyr Trp His Lys		
130	135	140
Pro Tyr Leu Pro Leu Ile Phe Lys Ile		
145	150	

● <210> 508
 <211> 562
 <212> PRT
 <213> Homo sapiens

<400> 508
 Met Leu Asp Thr Ile Ala Arg Ala Leu Gln Asp Leu Gly Arg Gln Val
 1 5 10 15
 Leu Pro Thr Leu Pro Ser Leu Ser Gln Glu Glu Val Ser Ile Ile Trp
 20 25 30

Gly Asn Val Ser Glu Phe Val Arg Arg Gln Leu Thr Leu His Lys Gly
 35 40 45
 Val Gln Ile Pro Ala Phe Gly Thr Phe Thr Phe Ile Arg Gln Lys Leu
 50 55 60
 Glu Val Gly Asn Asn Lys Phe Ile Leu Ile Gln Arg Pro Val Phe Ile
 65 70 75 80
 Met Val Gly Lys Leu Val Gln Ile His Gly Leu Lys Gln Asn Lys Arg
 85 90 95
 Pro Gly Thr Val Asp Ser Val Leu Ser Ser Arg Glu Ala Leu Arg Lys
 100 105 110
 Trp Pro Ser Ser Val Leu Ala Phe Pro Arg Ile Glu Leu Lys Glu Met
 115 120 125
 Glu Asn Lys Leu Pro Met Glu Thr Leu Val Glu Glu Cys Gly Glu Asn
 130 135 140
 Arg Glu Arg Lys Cys Lys Leu Lys Asp Gln Ser Asp Lys Glu Glu Gly
 145 150 155 160
 Thr Arg Asp Ile Ser Ser Pro Lys Arg Leu Arg Asp Arg Gln Ala Leu
 165 170 175
 Phe Pro Ala Lys Val Thr Asn Val Ser Leu Leu Glu Lys Phe Glu Arg
 180 185 190
 Ser Glu Ser Gly Gly Lys Ile Met Thr Pro Glu Ser Leu Ser Tyr Pro
 195 200 205
 Ser Cys Leu Lys His Asp Ser Glu Met Lys Pro Gln Thr Ser Pro Ala
 210 215 220
 Cys Gln Asp His Asn Lys Ala Gly Gln Glu Met Cys Tyr Val Cys Leu
 225 230 235 240
 Gln Arg Ala Gln Arg Asn Ser Leu Leu Tyr Tyr Ser Glu Glu Arg Arg
 245 250 255
 Arg Glu Ile Glu Asp Glu Arg Leu Ile Gln Gln Tyr Gln Met Leu Lys

260	265	270
Asp Gln Glu Ala Leu Phe Arg His Gln Met Lys Ser Leu Ala Thr Arg		
275	280	285
Glu Gln Asn Gln Lys Asn Ala Ala Tyr Asn Leu Gly Val Ala Glu Ala		
290	295	300
Ile Arg Asn His Lys Asn Glu Lys Pro Glu Phe Tyr Lys Ser Phe Leu		
305	310	315
Phe Asp Lys Arg Pro Leu Ser Pro Ala Leu Asn Ala Leu Lys Gln Glu		
325	330	335
Glu Tyr Ser Arg Ser Leu Leu Lys Gln Met Asp Asn Arg Gln Glu Asn		
340	345	350
Glu Ile Lys Gln Arg Gln Tyr Arg Glu Leu Met Asp Arg Leu Glu Gln		
355	360	365
Val Gln Leu Thr Glu Glu Leu Ala Ala Gln Arg Ala Lys Phe Leu Lys		
370	375	380
Asp Lys Met Glu Glu Thr Gln Cys Tyr Lys Arg Ala Leu Asp Ala Gln		
385	390	395
Ile Lys Asn Lys Pro Ser Arg Leu Pro Pro Phe Glu Pro Asp Ser Ser		
405	410	415
Glu Pro Ile Phe Gly Lys Asn Glu Gly Glu Leu Met Val Glu Lys Gln		
420	425	430
Lys Arg Glu Gln Asn Tyr Met Lys His Gln Leu Glu Ala Ala Ala Asn		
435	440	445
His Lys Arg Lys Ala Ile Leu His Gln Leu Val Asp Gln Arg Arg Asp		
450	455	460
Leu Gln Met Leu Gln Arg Thr Gln Arg Glu His Leu Ala Asp Arg Thr		
465	470	475
Ala Glu Leu Glu Arg Val Asn Arg Val Asn Gln Cys Leu Gln Glu Asp		
485	490	495

Trp Glu Arg Ser Ala Ala Met Lys Lys Gln Arg Asp Leu Glu Asp Lys
 500 505 510
 Ala Phe Glu Arg Ala Ser Asp Lys Leu Phe Leu Leu Asp Gln Cys Glu
 515 520 525
 Lys Tyr Arg Arg Cys Lys Gln Cys Gln Arg Arg Thr Ser Asn Val Gly
 530 535 540
 Glu Ser Asn Leu Trp Pro Leu Asn Lys Phe Leu Pro Gly Ser Arg Leu
 545 550 555 560
 Leu Val

<210> 509

<211> 385

<212> PRT

<213> Homo sapiens

<400> 509

Met Pro Lys Lys Leu Leu Leu Pro Pro Pro Ser Ala Ser Ser Ala
 1 5 . 10 15

Phe Arg Val Pro Arg Ala Arg Pro Val Pro Pro Pro Ala Met Asn Ala
 20 25 30

Ala Arg Thr Gly Tyr Arg Val Phe Ser Ala Asn Ser Thr Ala Ala Cys
 35 40 45

Thr Glu Leu Ala Lys Arg Ile Thr Glu Arg Leu Gly Ala Glu Leu Gly
 50 55 60

Lys Ser Val Val Tyr Gln Glu Thr Asn Gly Glu Thr Arg Val Glu Ile
 65 70 75 80

Lys Glu Ser Val Arg Gly Gln Asp Ile Phe Ile Ile Gln Thr Ile Pro

85	90	95
Arg Asp Val Asn Thr Ala Val Met Glu Leu Leu Ile Met Ala Tyr Ala		
100	105	110
Leu Lys Thr Ala Cys Ala Arg Asn Ile Ile Gly Val Ile Pro Tyr Phe		
115	120	125
Pro Tyr Ser Lys Gln Ser Lys Met Arg Lys Arg Gly Ser Ile Val Cys		
130	135	140
Lys Leu Leu Ala Ser Met Leu Ala Lys Ala Gly Leu Thr His Ile Ile		
145	150	155
Thr Met Asp Leu His Gln Lys Glu Ile Gln Gly Phe Phe Ser Phe Pro		
165	170	175
Val Asp Asn Leu Arg Ala Ser Pro Phe Leu Leu Gln Tyr Ile Gln Glu		
180	185	190
Glu Ile Pro Asn Tyr Arg Asn Ala Val Ile Val Ala Lys Ser Pro Asp		
195	200	205
Ala Ala Lys Arg Ala Gln Ser Tyr Ala Glu Arg Leu Arg Leu Gly Leu		
210	215	220
Ala Val Ile His Gly Glu Ala Gln Cys Thr Glu Leu Asp Met Asp Asp		
225	230	235
Gly Arg His Ser Pro Pro Met Val Lys Asn Ala Thr Val His Pro Gly		
245	250	255
Leu Glu Leu Pro Leu Met Met Ala Lys Glu Lys Pro Pro Ile Thr Val		
260	265	270
Val Gly Asp Val Gly Gly Arg Ile Ala Ile Ile Val Asp Tyr Ile Ile		
275	280	285
Asp Asp Val Glu Ser Phe Val Ala Ala Ala Glu Ile Leu Lys Glu Arg		
290	295	300
Gly Ala Tyr Lys Ile Tyr Val Met Ala Thr His Gly Ile Leu Ser Ala		
305	310	315
320		

Glu Ala Pro Arg Leu Ile Glu Glu Ser Ser Val Asp Glu Val Val Val
 325 330 335
 Thr Asn Thr Val Pro His Glu Val Gln Lys Leu Gln Cys Pro Lys Ile
 340 345 350
 Lys Thr Val Asp Ile Ser Leu Ile Leu Ser Glu Ala Ile Arg Arg Ile
 355 360 365
 His Asn Gly Glu Ser Met Ala Tyr Leu Phe Arg Asn Ile Thr Val Asp
 370 375 380
 Asp
 385

<210> 510
 <211> 621
 <212> PRT
 <213> Homo sapiens

<400> 510
 Met Asp Leu Leu Thr Arg Glu Asn Val Ala Leu Lys Val Glu Ser Ala
 1 5 10 15
 Gln Gln Pro Lys Gln Val Leu Lys Met Glu Val Ala Val Leu Lys Lys
 20 25 30
 Leu Gln Gly Lys Asp His Val Cys Arg Phe Ile Gly Cys Gly Arg Asn
 35 40 45
 Glu Lys Phe Asn Tyr Val Val Met Gln Leu Gln Gly Arg Asn Leu Ala
 50 55 60
 Asp Leu Arg Arg Ser Gln Pro Arg Gly Thr Phe Thr Leu Ser Thr Thr
 65 70 75 80
 Leu Arg Leu Gly Lys Gln Ile Leu Glu Ser Ile Glu Ala Ile His Ser

85	90	95
Val Gly Phe Leu His Arg Asp Ile Lys Pro Ser Asn Phe Ala Met Gly		
100	105	110
Arg Leu Pro Ser Thr Tyr Arg Lys Cys Tyr Met Leu Asp Phe Gly Leu		
115	120	125
Ala Arg Gln Tyr Thr Asn Thr Gly Asp Val Arg Pro Pro Arg Asn		
130	135	140
Val Ala Gly Phe Arg Gly Thr Val Arg Tyr Ala Ser Val Asn Ala His		
145	150	155
Lys Asn Arg Glu Met Gly Arg His Asp Asp Leu Trp Ser Leu Phe Tyr		
165	170	175
Met Leu Val Glu Phe Ala Val Gly Gln Leu Pro Trp Arg Lys Ile Lys		
180	185	190
Asp Lys Glu Gln Val Gly Met Ile Lys Glu Lys Tyr Glu His Arg Met		
195	200	205
Leu Leu Lys His Met Pro Ser Glu Phe His Leu Phe Leu Asp His Ile		
210	215	220
Ala Ser Leu Asp Tyr Phe Thr Lys Pro Asp Tyr Gln Leu Ile Met Ser		
225	230	235
Val Phe Glu Asn Ser Met Lys Glu Arg Gly Ile Ala Glu Asn Glu Ala		
245	250	255
Phe Asp Trp Glu Lys Ala Gly Thr Asp Ala Leu Leu Ser Thr Ser Thr		
260	265	270
Ser Thr Pro Pro Gln Gln Asn Thr Arg Gln Thr Ala Ala Met Phe Gly		
275	280	285
Val Val Asn Val Thr Pro Val Pro Gly Asp Leu Leu Arg Glu Asn Thr		
290	295	300
Glu Asp Val Leu Gln Gly Glu His Leu Ser Asp Gln Glu Asn Ala Pro		
305	310	315
320		

Pro Ile Leu Pro Gly Arg Pro Ser Glu Gly Leu Gly Pro Ser Pro His
 325 330 335
 Leu Val Pro His Pro Gly Gly Pro Glu Ala Glu Val Trp Glu Gly Thr
 340 345 350
 Asp Val Asn Arg Asn Lys Leu Arg Ile Asn Ile Gly Lys Ser Pro Cys
 355 360 365
 Val Glu Glu Glu Gln Ser Arg Gly Met Gly Val Pro Ser Ser Pro Val
 370 375 380
 Arg Ala Pro Pro Asp Ser Pro Thr Thr Pro Val Arg Ser Leu Arg Tyr
 385 390 395 400
 Arg Arg Val Asn Ser Pro Glu Ser Glu Arg Leu Ser Thr Ala Asp Gly
 405 410 415
 Arg Val Glu Leu Pro Glu Arg Arg Ser Arg Met Asp Leu Pro Gly Ser
 420 425 430
 Pro Ser Arg Gln Ala Cys Ser Ser Gln Pro Ala Gln Met Leu Ser Val
 435 440 445
 Asp Thr Gly His Ala Asp Arg Gln Ala Ser Gly Arg Met Asp Val Ser
 450 455 460
 Ala Ser Val Glu Gln Glu Ala Leu Ser Asn Ala Phe Arg Ser Val Pro
 465 470 475 480
 Leu Ala Glu Glu Glu Asp Phe Asp Ser Lys Glu Trp Val Ile Ile Asp
 485 490 495
 Lys Glu Thr Glu Leu Lys Asp Phe Pro Pro Gly Ala Glu Pro Ser Thr
 500 505 510
 Ser Gly Thr Thr Asp Glu Glu Pro Glu Glu Leu Arg Pro Leu Pro Glu
 515 520 525
 Glu Gly Glu Glu Arg Arg Leu Gly Ala Glu Pro Phe Pro Leu Thr
 530 535 540
 Pro Ala Leu Gly Thr Pro Pro Ser Thr Glu Arg Val Gly Pro His Arg

545	550	555	560
Pro Thr Glu Thr Val Gly Gly Gln Thr Leu Gly Ala Leu Pro Pro			
565	570	575	
Ala Val Gln Pro Pro Ala Thr Thr Gly Val Leu Arg Val Leu Leu			
580	585	590	
His Ala Gly Asp Gly Ala Leu Pro Ser Pro Arg Arg Arg Arg Leu Leu			
595	600	605	
Gly Leu Leu Arg Phe Pro His Ser Ala Gln Pro Leu Gly			
610	615	620	

<210> 511
 <211> 267
 <212> PRT
 <213> Homo sapiens

<400> 511			
Met Phe Arg Arg Lys Ala Glu Gly Leu Asp Leu Ala Ser Cys Val Arg			
1	5	10	15
Ser Leu Asp Val Leu Val Leu Asp Glu Ala Asp Arg Leu Leu Asp Met			
20	25	30	
Gly Phe Glu Ala Ser Ile Asn Thr Ile Leu Glu Phe Leu Pro Lys Gln			
35	40	45	
Arg Arg Thr Gly Leu Phe Ser Ala Thr Gln Thr Gln Glu Val Glu Asn			
50	55	60	
Leu Val Arg Ala Gly Leu Arg Asn Pro Val Arg Val Ser Val Lys Glu			
65	70	75	80
Lys Gly Val Ala Ala Ser Ser Ala Gln Lys Thr Pro Ser Arg Leu Glu			
85	90	95	

Asn Tyr Tyr Met Val Cys Lys Ala Asp Glu Lys Phe Asn Gln Leu Val
 100 105 110
 His Phe Leu Arg Asn His Lys Gln Glu Lys His Leu Val Phe Phe Ser
 115 120 125
 Thr Cys Ala Cys Val Glu Tyr Tyr Gly Lys Ala Leu Glu Val Leu Val
 130 135 140
 Lys Gly Val Lys Ile Met Cys Ile His Gly Lys Met Lys Tyr Lys Arg
 145 150 155 160
 Asn Lys Ile Phe Met Glu Phe Arg Lys Leu Gln Ser Gly Ile Leu Val
 165 170 175
 Cys Thr Asp Val Met Ala Arg Gly Ile Asp Ile Pro Glu Val Asn Trp
 180 185 190
 Val Leu Gln Tyr Asp Pro Pro Ser Asn Ala Ser Ala Phe Val His Arg
 195 200 205
 Cys Gly Arg Thr Ala Arg Ile Gly His Gly Gly Ser Ala Leu Val Phe
 210 215 220
 Leu Leu Pro Met Glu Glu Ser Tyr Ile Asn Phe Leu Ala Ile Ser Gln
 225 230 235 240
 Lys Val Ser Cys Arg Pro Phe Ser Asp Arg Met Pro Ser Asp Gly Val
 245 250 255
 Ala Gly Lys Val Leu Gln His Val Val Ser Asn
 260 265

<210> 512

<211> 700

<212> PRT

<213> Homo sapiens

<400> 512

Met Leu Ser Asp Asp His Val Asn Glu Ile Ile Ile Gln Lys Leu Ile
 1 5 10 15

Ala Ser Leu Ile Pro Met Thr Ser Arg Asp Arg Ile Lys Ala Ile Arg
 20 25 30

Asn Gln Pro Arg Thr Met Glu Glu Lys Arg Asn Leu Ser Arg Gly Gly
 35 40 45

Leu Thr Ile Thr Thr Glu Asp Glu Gly Arg Ala Lys Ala His Leu Thr
 50 55 60

Trp Trp Lys Ile Val Asp Lys Glu Lys Ser Lys Gln Thr His Arg Ile
 65 70 75 80

Leu Gln Leu Asn Cys Cys Ile Gln Cys Leu Asn Ser Ile Ser Arg Ala
 85 90 95

Tyr Arg Arg Ser Lys Asn Ser Leu Ser Glu Ile Leu Asn Ser Ile Ser
 100 105 110

Leu Trp Gln Lys Thr Leu Lys Ile Ile Gly Gly Lys Phe Gly Thr Ser
 115 120 125

Val Leu Ser Tyr Phe Asn Phe Leu Arg Trp Leu Leu Lys Phe Asn Ile
 130 135 140

Phe Ser Phe Ile Leu Asn Phe Ser Phe Ile Ile Ile Pro Gln Phe Thr
 145 150 155 160

Val Ala Lys Lys Asn Thr Leu Gln Phe Thr Gly Leu Glu Phe Phe Thr
 165 170 175

Gly Val Gly Tyr Phe Arg Asp Thr Val Met Tyr Tyr Gly Phe Tyr Thr
 180 185 190

Asn Ser Thr Ile Gln His Gly Asn Ser Gly Ala Ser Tyr Asn Met Gln
 195 200 205

Leu Ala Tyr Ile Phe Thr Ile Gly Ala Cys Leu Thr Thr Cys Phe Phe
 210 215 220

Ser Leu Leu Phe Ser Met Ala Lys Tyr Phe Arg Asn Asn Phe Ile Asn
 225 230 235 240
 Pro His Ile Tyr Ser Gly Gly Ile Thr Lys Leu Ile Phe Cys Trp Asp
 245 250 255
 Phe Thr Val Thr His Glu Lys Ala Val Lys Leu Lys Gln Lys Asn Leu
 260 265 270
 Ser Thr Glu Ile Arg Glu Asn Leu Ser Glu Leu Arg Gln Glu Asn Ser
 275 280 285
 Lys Leu Thr Phe Asn Gln Leu Leu Thr Arg Phe Ser Ala Tyr Met Val
 290 295 300
 Ala Trp Val Val Ser Thr Gly Val Ala Ile Ala Cys Cys Ala Ala Val
 305 310 315 320
 Tyr Tyr Leu Ala Glu Tyr Asn Leu Glu Phe Leu Lys Thr His Ser Asn
 325 330 335
 Pro Gly Ala Val Leu Leu Leu Pro Phe Val Val Ser Cys Ile Asn Leu
 340 345 350
 Ala Val Pro Cys Ile Tyr Ser Met Phe Arg Leu Val Glu Arg Tyr Glu
 355 360 365
 Met Pro Arg His Glu Val Tyr Val Leu Leu Ile Arg Asn Ile Phe Leu
 370 375 380
 Lys Ile Ser Ile Ile Gly Ile Leu Cys Tyr Tyr Trp Leu Asn Thr Val
 385 390 395 400
 Ala Leu Ser Gly Glu Glu Cys Trp Gly Thr Leu Ile Gly Gln Asp Ile
 405 410 415
 Tyr Arg Leu Leu Leu Met Asp Phe Val Phe Ser Leu Val Asn Ser Phe
 420 425 430
 Leu Gly Glu Phe Leu Arg Arg Ile Ile Gly Met Gln Leu Ile Thr Ser
 435 440 445
 Leu Gly Leu Gln Glu Phe Asp Ile Ala Arg Asn Val Leu Glu Leu Ile

450	455	460
Tyr Ala Gln Thr Leu Val Trp Ile Gly Ile Phe Phe Arg Pro Leu Leu		
465	470	475
Pro Phe Ile Gln Met Ile Met Leu Phe Ile Met Phe Tyr Ser Lys Asn		480
485	490	495
Ile Ser Leu Met Met Asn Phe Gln Pro Pro Ser Lys Ala Trp Arg Ala		
500	505	510
Ser Gln Met Met Thr Phe Phe Ile Phe Leu Leu Phe Phe Pro Ser Phe		
515	520	525
Thr Gly Val Leu Cys Thr Leu Ala Ile Thr Ile Trp Arg Leu Lys Pro		
530	535	540
Ser Ala Asp Cys Gly Pro Phe Arg Gly Leu Pro Leu Phe Ile His Ser		
545	550	555
Ile Tyr Ser Trp Ile Asp Thr Leu Ser Thr Arg Pro Gly Tyr Leu Trp		560
565	570	575
Val Val Trp Ile Tyr Arg Asn Leu Ile Gly Ser Val His Phe Phe Phe		
580	585	590
Ile Leu Thr Leu Ile Val Leu Ile Ile Thr Tyr Leu Tyr Trp Gln Ile		
595	600	605
Thr Glu Gly Arg Lys Ile Met Ile Arg Leu Leu His Glu Gln Ile Ile		
610	615	620
Asn Glu Gly Lys Asp Lys Met Phe Leu Ile Glu Lys Leu Ile Lys Leu		
625	630	635
Gln Asp Met Glu Lys Lys Ala Asn Pro Ser Ser Leu Val Leu Glu Arg		640
645	650	655
Arg Glu Val Glu Gln Gln Gly Phe Cys Ile Trp Gly Asn Met Met Ala		
660	665	670
Val Leu Thr Cys Asp Leu Glu Asp Gln Phe Lys Lys Ala Ile Gln Gly		
675	680	685

Pro Asp Asp Ser Phe Gly Asn Gln Thr Pro Ile Lys

690 695 700

<210> 513

<211> 174

<212> PRT

<213> Homo sapiens

<400> 513

Met Ile Ser Asn Leu Ser Trp Glu Leu Pro Gly Ser Leu Pro Leu Ile
1 5 10 15

Ser Val Pro Tyr Ser Met His Cys Cys Thr Leu Gly Phe Leu Ser Cys
20 25 30

Ser Leu Phe Leu His Met Ser Phe Glu Leu Lys Leu Leu Leu Leu
35 40 45

Leu Trp Leu Ala Ala Ser Cys Ser Leu Phe Leu His Ser His Ala Trp
50 55 60

Leu Ser Glu Cys Leu Ile Val Arg Leu Tyr Leu Gly Pro Leu Asp Ser
65 70 75 80

Arg Pro Gly Val Leu Lys Glu Pro Lys Leu Met Gly Ala Ile Ser Phe
85 90 95

Phe Ile Phe Phe Thr Leu Leu Val Leu Ala Arg Gln Asn Glu Tyr
100 105 110

Tyr Cys Arg Leu Asp Phe Leu Trp Lys Lys Leu Arg Gln Glu Arg
115 120 125

Glu Glu Thr Glu Thr Met Glu Asn Leu Thr Arg Leu Leu Glu Asn
130 135 140

Val Leu Pro Ala His Val Ala Pro Gln Phe Ile Gly Gln Asn Arg Arg

145 150 155 160

Asn Glu Ser Pro Val Pro Pro Gly Ser Leu Pro Pro Val Leu

165 170

<210> 514

<211> 546

<212> PRT

<213> Homo sapiens

<400> 514

Met Ile His Thr Thr Glu Lys Pro Tyr Arg Cys Asn Glu Ser Gly Lys

1 5 10 15

Ala Phe His Arg Gly Ser Leu Leu Thr Val His Gln Ile Val His Thr

20 25 30

Arg Gly Lys Pro Tyr Gln Cys Asp Val Cys Gly Arg Ile Phe Arg Gln

35 40 45

Asn Ser Asp Leu Val Asn His Arg Arg Ser His Thr Gly Asp Lys Pro

50 55 60

Tyr Ile Cys Asn Glu Cys Gly Lys Ser Phe Ser Lys Ser Ser His Leu

65 70 75 80

Ala Val His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn

85 90 95

Arg Cys Gly Lys Cys Phe Ser Gln Ser Ser Ser Leu Ala Thr His Gln

100 105 110

Thr Val His Thr Gly Asp Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys

115 120 125

Thr Phe Lys Arg Asn Ser Ser Leu Thr Ala His His Ile Ile His Ala

130 135 140

Gly Lys Lys Pro Tyr Thr Cys Asp Val Cys Gly Lys Val Phe Tyr Gln
 145 150 155 160
 Asn Ser Gln Leu Val Arg His Gln Ile Ile His Thr Gly Glu Thr Pro
 165 170 175
 Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Phe Gln Arg Ser Arg Leu
 180 185 190
 Ala Gly His Arg Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn
 195 200 205
 Glu Cys Gly Lys Val Phe Ser Gln His Ser His Leu Ala Val His Gln
 210 215 220
 Arg Val His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys
 225 230 235 240
 Ala Phe Asn Trp Gly Ser Leu Leu Thr Val His Gln Arg Ile His Thr
 245 250 255
 Gly Glu Lys Pro Tyr Lys Cys Asn Val Cys Gly Lys Val Phe Asn Tyr
 260 265 270
 Gly Gly Tyr Leu Ser Val His Met Arg Cys His Thr Gly Glu Lys Pro
 275 280 285
 Leu His Cys Asn Lys Cys Gly Met Val Phe Thr Tyr Tyr Ser Cys Leu
 290 295 300
 Ala Arg His Gln Arg Met His Thr Gly Glu Lys Pro Tyr Lys Cys Asn
 305 310 315 320
 Val Cys Gly Lys Val Phe Ile Asp Ser Gly Asn Leu Ser Ile His Arg
 325 330 335
 Arg Ser His Thr Gly Glu Lys Pro Phe Gln Cys Asn Glu Cys Gly Lys
 340 345 350
 Val Phe Ser Tyr Tyr Ser Cys Leu Ala Arg His Arg Lys Ile His Thr
 355 360 365
 Gly Glu Lys Pro Tyr Lys Cys Asn Asp Cys Gly Lys Ala Tyr Thr Gln

370	375	380
Arg Ser Ser Leu Thr Lys His Leu Val Ile His Thr Gly Glu Asn Pro		
385	390	395
Tyr His Cys Asn Glu Phe Gly Glu Ala Phe Ile Gln Ser Ser Lys Leu		400
405	410	415
Ala Arg Tyr His Arg Asn Pro Thr Gly Glu Lys Pro His Lys Cys Ser		
420	425	430
Glu Cys Gly Arg Thr Phe Ser His Lys Thr Ser Leu Val Tyr His Gln		
435	440	445
Arg Arg His Thr Gly Glu Met Pro Tyr Lys Cys Ile Glu Cys Gly Lys		
450	455	460
Val Phe Asn Ser Thr Thr Leu Ala Arg His Arg Arg Ile His Thr		
465	470	475
Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Arg Tyr		480
485	490	495
Arg Ser Gly Leu Ala Arg His Trp Ser Ile His Thr Gly Glu Lys Pro		
500	505	510
Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Arg Val Arg Ser Ile Leu		
515	520	525
Leu Asn His Gln Met Met His Thr Gly Glu Lys Pro Tyr Lys Cys Asn		
530	535	540
Glu Cys		
545		

<210> 515

<211> 113

<212> PRT

<213> Homo sapiens

<400> 515

Met	Met	His	Leu	Gln	Pro	Ala	Trp	Ser	Ser	Phe	Gly	Gln	Ser	Gly	Pro
1															15
Ile	Leu	Met	Arg	Ser	Gly	Gly	Met	Gln	Leu	Leu	Leu	Leu	Pro	His	Gly
															30
Ser	Val	Arg	Pro	Asn	Gln	Pro	Ala	Leu	Ser	Pro	Leu	Pro	Ala	Val	Tyr
															45
Gln	Val	Ala	Leu	Glu	Arg	Gly	His	Pro	Glu	Gly	Thr	Thr	Cys	Ala	Ala
															50
Val	Gly	Gly	Gly	Lys	Ile	Asn	Arg	Pro	Arg	Thr	Pro	Gly	Gln	Ala	Gly
															65
Ala	Thr	Glu	Glu	Val	Ser	Ser	Lys	Gly	Gly	Lys	Leu	Ser	Gly	Leu	Phe
															85
Leu	Thr	Ile	Leu	Pro	Val	Pro	Arg	Pro	Trp	Thr	Ala	Gly	Gln	Pro	Gln
															100
Ser															105
															110

<210> 516

<211> 129

<212> PRT

<213> Homo sapiens

<400> 516

Met	Met	Thr	Asp	Leu	Lys	Gln	Ser	His	Ser	Val	Arg	Leu	Asn	Asp	Gly
1															15
Pro	Phe	Met	Pro	Val	Leu	Gly	Phe	Gly	Thr	Tyr	Ala	Pro	Asp	His	Thr

20	25	30
Pro Lys Ser Gln Ala Ala Glu Ala Thr Lys Val Ala Ile Asp Val Gly		
35	40	45
Phe Arg His Ile Asp Ser Ala Tyr Leu Tyr Gln Asn Glu Glu Glu Val		
50	55	60
Gly Gln Ala Ile Trp Glu Lys Ile Ala Asp Gly Thr Val Lys Arg Glu		
65	70	75
Glu Ile Phe Tyr Thr Ile Lys Leu Trp Ala Thr Phe Phe Arg Ala Glu		
85	90	95
Leu Val His Pro Ala Leu Glu Arg Ser Leu Lys Lys Leu Gly Pro Asp		
100	105	110
Tyr Val Asp Leu Phe Ile Ile His Val Pro Phe Ala Met Lys Gly Ser		
115	120	125
Ser		

<210> 517

<211> 105

<212> PRT

<213> Homo sapiens

<400> 517

Met Cys Pro Val Cys Gly Arg Ala Leu Ser Ser Pro Gly Ser Leu Gly			
1	5	10	15
Arg His Leu Leu Ile His Ser Glu Asp Gln Arg Ser Asn Cys Ala Val			
20	25	30	
Cys Gly Ala Arg Phe Thr Ser His Ala Thr Phe Asn Arg Ser Ala Gly			
35	40	45	

His Leu Ser Leu Leu Cys Trp Glu Gln Ile Thr Gly Cys Glu Phe Cys
 50 55 60
 Phe Leu Lys Ser Lys Arg Arg Leu Glu Ile Gly Asn Ala Lys Ala Ala
 65 70 75 80
 Asp Ala Cys Ser Leu Glu Val Gln Val Arg Arg Leu Gly Asn Met Pro
 85 90 95
 Ile Pro Ser His Ser Pro Lys Gly Lys
 100 105

<210> 518

<211> 646

<212> PRT

<213> Homo sapiens

<400> 518

Met Phe Leu Ser Ile Ser Thr Arg Leu Pro Ser Gln Tyr Ile Tyr Gly
 1 5 10 15

Phe Gly Glu Thr Glu His Thr Thr Phe Arg Arg Asn Met Asn Trp Asn
 20 25 30

Thr Trp Gly Met Phe Ala His Asp Glu Pro Pro Ala Tyr Lys Lys Asn
 35 40 45

Ser Tyr Gly Val His Pro Tyr Tyr Met Ala Leu Glu Glu Asp Gly Ser
 50 55 60

Ala His Gly Val Leu Leu Leu Asn Ser Asn Ala Met Asp Val Thr Leu
 65 70 75 80

Gln Pro Thr Pro Ala Leu Thr Tyr Arg Thr Thr Gly Gly Ile Leu Asp
 85 90 95

Phe Tyr Ile Val Leu Gly Pro Thr Pro Glu Leu Val Thr Gln Gln Tyr

100	105	110
Thr Glu Leu Ile Gly Arg Pro Ala Met Ile Pro Tyr Trp Ala Leu Gly		
115	120	125
Phe His Leu Ser Arg Tyr Gly Tyr Gln Asn Asp Ala Glu Ile Ser Ser		
130	135	140
Leu Tyr Asp Ala Met Val Ala Ala Gln Ile Pro Tyr Asp Val Gln His		
145	150	155
Val Asp Ile Asp Tyr Met Asn Arg Lys Leu Asp Phe Thr Leu Ser Ala		
165	170	175
Asn Phe Gln Asn Leu Ser Leu Leu Ile Glu Gln Met Lys Lys Asn Gly		
180	185	190
Met Arg Phe Ile Leu Ile Leu Asp Pro Ala Ile Ser Gly Asn Glu Thr		
195	200	205
Gln Tyr Leu Pro Phe Ile Arg Gly Gln Glu Asn Asn Val Phe Ile Lys		
210	215	220
Trp Pro Asp Thr Asn Asp Ile Val Trp Gly Lys Val Trp Pro Asp Leu		
225	230	235
Pro Asn Val Ile Val Asp Gly Ser Leu Asp His Glu Thr Gln Val Lys		
245	250	255
Leu Tyr Arg Ala Tyr Val Ala Phe Pro Asp Phe Phe Arg Asn Ser Thr		
260	265	270
Ala Ala Trp Trp Lys Lys Glu Ile Glu Glu Leu Tyr Ala Asn Pro Arg		
275	280	285
Glu Pro Glu Lys Ser Leu Lys Phe Asp Gly Leu Trp Ile Asp Met Asn		
290	295	300
Glu Pro Ser Asn Phe Val Asp Gly Ser Val Arg Gly Cys Ser Asn Glu		
305	310	315
Met Leu Asn Asn Pro Pro Tyr Met Pro Tyr Leu Glu Ser Arg Asp Lys		
325	330	335

Gly Leu Ser Ser Lys Thr Leu Cys Met Glu Ser Gln Gln Ile Leu Pro
 340 345 350
 Asp Ser Ser Pro Val Glu His Tyr Asn Val His Asn Leu Tyr Gly Trp
 355 360 365
 Ser Gln Thr Arg Pro Thr Tyr Glu Ala Val Gln Glu Val Thr Gly Gln
 370 375 380
 Arg Gly Val Ile Ile Thr Arg Ser Thr Phe Pro Ser Ser Gly Arg Trp
 385 390 395 400
 Gly Gly His Arg Leu Gly Asn Asn Thr Ala Ala Trp Asp Gln Leu Gly
 405 410 415
 Lys Ser Ile Ile Gly Met Met Glu Phe Ser Leu Phe Gly Ile Pro Tyr
 420 425 430
 Thr Gly Ala Asp Ile Cys Gly Phe Phe Gly Asp Ala Glu Tyr Glu Met
 435 440 445
 Cys Val Arg Trp Met Gln Leu Gly Ala Phe Tyr Pro Phe Ser Arg Asn
 450 455 460
 His Asn Asn Ile Gly Thr Arg Arg Gln Asp Pro Val Ala Trp Asn Ser
 465 470 475 480
 Thr Phe Glu Met Leu Ser Arg Lys Val Leu Glu Thr Arg Tyr Thr Leu
 485 490 495
 Leu Pro Tyr Leu Tyr Thr Leu Met His Lys Ala His Val Glu Gly Ser
 500 505 510
 Thr Val Val Arg Pro Leu Leu His Glu Phe Thr Asp Asp Arg Thr Thr
 515 520 525
 Trp Asp Ile Asp Arg Gln Phe Met Leu Gly Pro Ala Ile Leu Ile Ser
 530 535 540
 Pro Val Leu Glu Thr Ser Thr Phe Glu Ile Ser Ala Tyr Phe Pro Arg
 545 550 555 560
 Ala Arg Trp Tyr Asp Tyr Ser Thr Gly Thr Ser Ser Thr Ser Thr Gly

565	570	575
Gln Arg Lys Ile Leu Lys Ala Pro Leu Asp His Ile Asn Leu His Val		
580	585	590
Arg Gly Gly Tyr Ile Leu Pro Trp Gln Glu Pro Ala Met Asn Thr His		
595	600	605
Ser Ser Arg Gln Asn Phe Met Gly Leu Ile Val Ala Leu Asp Asp Asn		
610	615	620
Gly Thr Ala Glu Gly Gln Val Phe Trp Asp Asp Gly Gln Ser Ile Val		
625	630	635
Phe Asn Thr Thr Ala Met		
645		

<210> 519
 <211> 472
 <212> PRT
 <213> Homo sapiens

<400> 519			
Met Ala Ser Pro Pro Arg Cys Ser Pro Thr Ala His Asp Arg Glu Cys			
1	5	10	15
Lys Leu Pro Pro Pro Ser Ala Pro Ala Ser Glu Tyr Cys Pro Gly Lys			
20	25	30	
Leu Ser Trp Gly Thr Met Ala Arg Ala Leu Gly Arg Phe Lys Leu Ser			
35	40	45	
Ile Pro His Thr His Leu Leu Ala Thr Leu Asp Pro Leu Ala Leu Asp			
50	55	60	
Arg Glu Pro Pro Pro His Leu Leu Pro Glu Lys His Gln Val Pro Glu			
65	70	75	80

Lys Leu Ile Trp Gly Asp Gln Asp Pro Leu Ser Lys Ile Pro Phe Lys
 85 90 95
 Ile Leu Ser Gly His Glu His Ala Val Ser Thr Cys His Phe Cys Val
 100 105 110
 Asp Asp Thr Lys Leu Leu Ser Gly Ser Tyr Asp Cys Thr Val Lys Leu
 115 120 125
 Trp Asp Pro Val Asp Gly Ser Val Val Arg Asp Phe Glu His Arg Pro
 130 135 140
 Lys Ala Pro Val Val Glu Cys Ser Ile Thr Gly Asp Ser Ser Arg Val
 145 150 155 160
 Ile Ala Ala Ser Tyr Asp Lys Thr Val Arg Ala Trp Asp Leu Glu Thr
 165 170 175
 Gly Lys Leu Leu Trp Lys Val Arg Tyr Asp Thr Phe Ile Val Ser Cys
 180 185 190
 Lys Phe Ser Pro Asp Gly Lys Tyr Val Val Ser Gly Phe Asp Val Asp
 195 200 205
 His Gly Ile Cys Ile Met Asp Ala Glu Asn Ile Thr Thr Val Ser Val
 210 215 220
 Ile Lys Asp His His Thr Arg Ser Ile Thr Ser Cys Cys Phe Asp Pro
 225 230 235 240
 Asp Ser Gln Arg Val Ala Ser Val Ser Leu Asp Arg Cys Ile Lys Ile
 245 250 255
 Trp Asp Val Thr Ser Gln Ala Thr Leu Leu Thr Ile Thr Lys Ala His
 260 265 270
 Ser Asn Ala Ile Ser Asn Cys Cys Phe Thr Phe Ser Gly His Phe Leu
 275 280 285
 Cys Thr Ser Ser Trp Asp Lys Asn Leu Lys Ile Trp Asn Val His Thr
 290 295 300
 Gly Glu Phe Arg Asn Arg Gly Ala Cys Val Thr Leu Met Gln Gly His

305	310	315	320
Glu Gly Ser Val Ser Ser Cys His Phe Ala Arg Asp Ser Ser Phe Leu			
325	330	335	
Ile Ser Gly Gly Phe Asp Arg Thr Val Ala Ile Trp Asp Val Ala Glu			
340	345	350	
Gly Tyr Arg Lys Leu Ser Leu Lys Gly His Asn Asp Trp Val Met Asp			
355	360	365	
Val Ala Ile Ser Asn Asn Lys Trp Ile Leu Ser Ala Ser Lys Asp			
370	375	380	
Arg Thr Met Arg Leu Trp Asn Ile Glu Glu Ile Asp Glu Ile Pro Leu			
385	390	395	400
Val Ile Lys Tyr Lys Lys Ala Val Gly Leu Lys Leu Lys Gln Cys Glu			
405	410	415	
Arg Cys Asp Arg Pro Phe Ser Ile Phe Lys Ser Asp Thr Ser Ser Glu			
420	425	430	
Met Phe Thr Gln Cys Val Phe Cys Arg Ile Asp Thr Arg Gly Leu Pro			
435	440	445	
Ala Asp Thr Ser Ser Ser Ser Ser Ser Glu Arg Glu Asn Ser Pro			
450	455	460	
Pro Pro Arg Gly Ser Lys Asp Asp			
465	470		

<210> 520

<211> 466

<212> PRT

<213> Homo sapiens

<400> 520

Met Phe Val Gly Val Ala Arg His Ser Gly Ser Gln Asp Glu Val Ser
 1 5 10 15
 Arg Gly Val Glu Pro Leu Asp Ala Ala Arg Ala Gln Pro Ala Lys Asp
 20 25 30
 Arg Arg Ala Lys Gly Thr Pro Lys Ser Ser Lys Pro Gly Lys Lys His
 35 40 45
 Arg Tyr Leu Arg Leu Leu Pro Glu Ala Leu Ile Arg Phe Gly Gly Phe
 50 55 60
 Arg Lys Arg Lys Lys Ala Lys Ser Ser Val Ser Lys Lys Pro Gly Glu
 65 70 75 80
 Val Asp Asp Ser Leu Glu Gln Pro Cys Gly Leu Gly Cys Leu Val Ser
 85 90 95
 Thr Cys Cys Glu Cys Cys Asn Asn Ile Arg Cys Phe Met Ile Phe Tyr
 100 105 110
 Cys Ile Leu Leu Ile Cys Gln Gly Val Val Phe Gly Leu Ile Asp Val
 115 120 125
 Ser Ile Gly Asp Phe Gln Lys Glu Tyr Gln Leu Lys Thr Ile Glu Lys
 130 135 140
 Leu Ala Leu Glu Lys Ser Tyr Asp Ile Ser Ser Gly Leu Val Ala Ile
 145 150 155 160
 Phe Ile Ala Phe Tyr Gly Asp Arg Lys Lys Val Ile Trp Phe Val Ala
 165 170 175
 Ser Ser Phe Leu Ile Gly Leu Gly Ser Leu Leu Cys Ala Phe Pro Ser
 180 185 190
 Ile Asn Glu Glu Asn Lys Gln Ser Lys Val Gly Ile Glu Gly Ile Ala
 195 200 205
 Glu Cys Thr Ser Met Ile Gly Tyr Ala Leu Gly Tyr Val Leu Gly Ala
 210 215 220
 Pro Leu Val Lys Val Pro Glu Asn Thr Thr Ser Ala Thr Lys Thr Gly

225	230	235	240
Lys Leu Gly Asn Leu Thr Ala Pro Cys Asn Glu Lys Cys Arg Cys Ser			
245	250	255	
Ser Ser Ile Tyr Ser Ser Ile Cys Gly Arg Asp Asp Ile Glu Tyr Phe			
260	265	270	
Ser Pro Cys Phe Ala Gly Cys Thr Tyr Ser Lys Ala Gln Asn Gln Lys			
275	280	285	
Lys Met Tyr Tyr Asn Cys Ser Cys Ile Lys Glu Gly Leu Ile Thr Ala			
290	295	300	
Asp Ala Glu Gly Asp Phe Ile Asp Ala Arg Pro Gly Lys Cys Asp Ala			
305	310	315	320
Lys Cys Tyr Lys Leu Pro Leu Phe Ile Ala Phe Ile Phe Ser Thr Leu			
325	330	335	
Ile Phe Ser Gly Phe Ser Gly Val Pro Ile Val Leu Ala Met Thr Arg			
340	345	350	
Val Val Pro Asp Lys Leu Arg Ser Leu Ala Leu Gly Val Ser Tyr Val			
355	360	365	
Ile Leu Arg Ile Phe Gly Thr Ile Pro Gly Pro Ser Ile Phe Lys Met			
370	375	380	
Ser Gly Glu Thr Ser Cys Ile Leu Arg Asp Val Asn Lys Cys Gly His			
385	390	395	400
Arg Gly Arg Cys Trp Ile Tyr Asn Lys Thr Lys Met Ala Phe Leu Leu			
405	410	415	
Val Gly Ile Cys Phe Leu Cys Lys Leu Cys Thr Ile Ile Phe Thr Thr			
420	425	430	
Ile Ala Phe Phe Ile Tyr Lys Arg Arg Leu Asn Glu Asn Thr Asp Phe			
435	440	445	
Pro Asp Val Thr Val Lys Asn Pro Lys Val Lys Lys Glu Glu Thr			
450	455	460	

Asp Leu

465

<210> 521

<211> 679

<212> PRT

<213> Homo sapiens

<400> 521

Met Met His Tyr Leu Lys Asn Ile Met Ile Ala Val Val Glu Ser Met

1	5	10	15
---	---	----	----

Ile Asn Lys Phe Glu Glu Asp Glu Thr Arg Asn Gln Glu Arg Gln Lys

20	25	30
----	----	----

Lys Ile Gln Lys Glu Lys Ser His Ser Tyr Arg Thr Asp Asn Cys Ser

35	40	45
----	----	----

Asp Ser Asp Ser Ser Leu Asn Gln Ser Tyr Lys Phe Cys Gln Gly Lys

50	55	60
----	----	----

Leu Gln Leu Ile Leu Asp Gln Leu Asp Pro Gly Gln Pro Lys Glu Val

65	70	75	80
----	----	----	----

Arg Tyr Glu Ala Leu Gln Thr Leu Cys Ser Ala Pro Pro Ser Asp Val

85	90	95
----	----	----

Leu Asn Cys Glu Asn Trp Thr Leu Cys Glu Lys Leu Thr Val Ser

100	105	110
-----	-----	-----

Leu Ser Asp Pro Asp Pro Val Phe Ser Asp Arg Ile Leu Lys Phe Cys

115	120	125
-----	-----	-----

Ala Gln Thr Phe Leu Leu Ser Pro Leu His Met Thr Lys Glu Ile Tyr

130	135	140
-----	-----	-----

Thr Ser Leu Ala Lys Tyr Leu Glu Ser Tyr Phe Leu Ser Arg Glu Asn

145	150	155	160
His Ile Pro Thr Leu Ser Ala Gly Val Asp Ile Thr Asn Pro Asn Met			
165	170	175	
Thr Arg Leu Leu Lys Lys Val Arg Leu Leu Asn Glu Tyr Gln Lys Glu			
180	185	190	
Ala Pro Ser Phe Trp Ile Arg His Pro Glu Lys Tyr Met Glu Glu Ile			
195	200	205	
Val Glu Ser Thr Leu Ser Leu Leu Thr Val Lys His Asn Gln Ser His			
210	215	220	
Val Val Ser Gln Lys Ile Leu Asp Pro Ile Tyr Phe Phe Ala Leu Val			
225	230	235	240
Asp Thr Lys Ala Val Trp Phe Lys Lys Trp Met His Ala His Tyr Ser			
245	250	255	
Arg Thr Thr Val Leu Arg Leu Leu Glu Lys Tyr Lys Ser Leu Val			
260	265	270	
Thr Thr Ala Ile Gln Gln Cys Val Gln Tyr Phe Glu Met Cys Lys Thr			
275	280	285	
Arg Lys Ala Asp Glu Thr Leu Gly His Ser Lys His Cys Arg Asn Lys			
290	295	300	
Gln Lys Thr Phe Tyr Tyr Leu Gly Gln Glu Leu Gln Tyr Ile Tyr Phe			
305	310	315	320
Ile His Ser Leu Cys Leu Leu Gly Arg Leu Leu Ile Tyr Lys Gln Gly			
325	330	335	
Arg Lys Leu Phe Pro Ile Lys Leu Lys Asn Lys Lys Gly Leu Val Ser			
340	345	350	
Leu Ile Asp Leu Leu Val Leu Phe Thr Gln Leu Ile Tyr Tyr Ser Pro			
355	360	365	
Ser Cys Pro Lys Met Thr Ser Ala Ala His Ser Glu Asn Tyr Ser Pro			
370	375	380	

Ala Ser Met Val Thr Glu Val Leu Trp Ile Leu Ser Asp Gln Lys Glu
 385 390 395 400
 Cys Ala Val Glu Cys Leu Tyr Asn Asn Ile Val Ile Glu Thr Leu Leu
 405 410 415
 Gln Pro Ile His Asn Leu Met Lys Gly Asn Glu Ala Ser Pro Asn Cys
 420 425 430
 Ser Glu Thr Ala Leu Ile His Ile Ala Gly Ile Leu Ala Arg Ile Ala
 435 440 445
 Ser Val Glu Glu Gly Leu Ile Leu Leu Leu Tyr Gly Ala Asn Met Asn
 450 455 460
 Ser Ser Glu Glu Ser Pro Thr Gly Ala His Ile Ile Ala Gln Phe Ser
 465 470 475 480
 Lys Lys Leu Leu Asp Glu Asp Ile Ser Ile Phe Ser Gly Ser Glu Met
 485 490 495
 Leu Pro Val Val Lys Gly Ala Phe Ile Ser Val Cys Arg His Ile Tyr
 500 505 510
 Ser Thr Cys Glu Gly Leu Gln Val Leu Ile Thr Tyr Asn Leu His Glu
 515 520 525
 Ser Ile Ala Lys Ala Trp Lys Lys Thr Ser Leu Leu Ser Glu Arg Ile
 530 535 540
 Pro Thr Pro Val Glu Gly Ser Asp Ser Val Ser Ser Val Ser Gln Glu
 545 550 555 560
 Ser Gln Asn Ile Met Ala Trp Glu Asp Asn Leu Leu Asp Asp Leu Leu
 565 570 575
 His Phe Ala Ala Thr Pro Lys Gly Leu Leu Leu Gln Arg Thr Gly
 580 585 590
 Ala Ile Asn Glu Cys Val Thr Phe Ile Phe Asn Arg Tyr Ala Lys Lys
 595 600 605
 Leu Gln Val Ser Arg His Lys Lys Phe Gly Tyr Gly Val Leu Val Thr

610	615	620
Arg Val Ala Ser Thr Ala Ala Gly Gly Ile Ala Leu Lys Lys Ser Gly		
625	630	635
Phe Ile Asn Glu Leu Ile Thr Glu Leu Trp Ser Asn Leu Glu Tyr Gly		
645	650	655
Arg Asp Asp Val Arg Val Thr His Pro Arg Thr Thr Pro Val Asp Pro		
660	665	670
Ile Asp Arg Ser Cys Gln Lys		
675		

<210> 522

<211> 1148

<212> PRT

<213> Homo sapiens

<400> 522

Met Val Leu Asn Leu Tyr Gln Leu Asn Gln Leu Asp Cys Pro Gly Gly		
1	5	10
15		

Arg Leu Ile Gly Gly Trp Glu Asp Asn Pro Phe Lys Gly Asp Leu Lys		
20	25	30

Ile Val Leu Arg Gly Asn His Thr Thr Gln Asp Trp Ala Leu Pro Glu		
35	40	45

Gly Pro Asn Gln Gly Ala Lys Val Leu Gly Val Phe Gly Glu Leu Asp		
50	55	60

Leu His Gly Ile Pro His Ser Ile Tyr Lys Thr Lys Leu Ser Glu Thr		
65	70	75
80		

Ala Phe Ala Gly Ser Lys Val Leu Ser Leu Met Asp Ala Val Asp Trp		
85	90	95

Gln Glu Gly Glu Glu Ile Val Ile Thr Thr Thr Ser Tyr Asp Phe His
 100 105 110
 Gln Thr Glu Thr Arg Ser Ile Val Lys Ile Leu His Asp His Lys Ile
 115 120 125
 Leu Ile Leu Asn Asp Ser Leu Ser Tyr Thr His Phe Ala Glu Lys Tyr
 130 135 140
 His Val Pro Gly Thr Gly Glu Ser Tyr Thr Leu Ala Ala Asp Val Gly
 145 150 155 160
 Ile Leu Ser Arg Asn Ile Lys Ile Val Gly Glu Asp Tyr Pro Gly Trp
 165 170 175
 Ser Glu Asp Ser Phe Gly Ala Arg Val Leu Val Gly Ser Phe Thr Glu
 180 185 190
 Asn Met Met Thr Phe Lys Gly Asn Ala Arg Ile Ser Asn Val Glu Phe
 195 200 205
 Tyr His Ser Gly Gln Glu Gly Phe Arg Asp Ser Thr Asp Pro Arg Tyr
 210 215 220
 Ala Val Thr Phe Leu Asn Leu Gly Gln Ile Gln Glu His Gly Ser Ser
 225 230 235 240
 Tyr Ile Arg Gly Cys Ala Phe His His Gly Phe Ser Pro Ala Ile Gly
 245 250 255
 Val Phe Gly Thr Asp Gly Leu Asp Ile Asp Asn Ile Ile His Phe
 260 265 270
 Thr Val Gly Glu Gly Ile Arg Ile Trp Gly Asn Ala Asn Arg Val Arg
 275 280 285
 Gly Asn Leu Ile Ala Leu Ser Val Trp Pro Gly Thr Tyr Gln Asn Arg
 290 295 300
 Lys Asp Leu Ser Ser Thr Leu Trp His Ala Ala Ile Glu Ile Asn Arg
 305 310 315 320
 Gly Thr Asn Thr Val Leu Gln Asn Asn Val Val Ala Gly Phe Gly Arg

325	330	335
Ala Gly Tyr Arg Ile Asp Gly Glu Pro Cys Pro Gly Gln Phe Asn Pro		
340	345	350
Val Glu Lys Trp Phe Asp Asn Glu Ala His Gly Gly Leu Tyr Gly Ile		
355	360	365
Tyr Met Asn Gln Asp Gly Leu Pro Gly Cys Ser Leu Ile Gln Gly Phe		
370	375	380
Thr Ile Trp Thr Cys Trp Asp Tyr Gly Ile Tyr Phe Gln Thr Thr Glu		
385	390	395
Ser Val His Ile Tyr Asn Val Thr Leu Val Asp Asn Gly Met Ala Ile		
405	410	415
Phe Pro Met Ile Tyr Met Pro Ala Ala Ile Ser His Ile Ser Ser		
420	425	430
Lys Asn Val Gln Ile Lys Ser Ser Leu Ile Val Gly Ser Ser Pro Gly		
435	440	445
Phe Asn Cys Ser Asp Val Leu Thr Asn Asp Asp Pro Asn Ile Glu Leu		
450	455	460
Thr Ala Ala His Arg Ser Pro Arg Ser Pro Ser Gly Gly Arg Ser Gly		
465	470	475
Ile Arg Trp Pro Thr Phe Ala Ser Ala His Asn Met Ala Pro Arg Lys		
485	490	495
Pro His Ala Gly Ile Met Ser Tyr Asn Ala Ile Ser Gly Leu Leu Asp		
500	505	510
Ile Ser Gly Ser Thr Phe Val Gly Phe Lys Asn Val Cys Ser Gly Glu		
515	520	525
Thr Asn Val Ile Phe Ile Thr Asn Pro Leu Asn Glu Asp Leu Gln His		
530	535	540
Pro Ile His Val Lys Asn Ile Lys Leu Val Asp Thr Thr Glu Gln Ser		
545	550	555
560		

Lys Ile Phe Ile His Arg Pro Asp Ile Ser Lys Val Asn Pro Ser Asp
 565 570 575
 Cys Val Asp Met Val Cys Asp Ala Lys Arg Lys Ser Phe Leu Arg Asp
 580 585 590
 Ile Asp Gly Ser Phe Leu Gly Asn Ala Gly Ser Val Ile Pro Gln Ala
 595 600 605
 Glu Tyr Glu Trp Asp Gly Asn Ser Gln Val Gly Ile Gly Asp Tyr Arg
 610 615 620
 Ile Pro Lys Ala Met Leu Thr Phe Leu Asn Gly Ser Arg Ile Pro Val
 625 630 635 640
 Thr Glu Lys Ala Pro His Lys Gly Ile Ile Arg Asp Ser Thr Cys Lys
 645 650 655
 Tyr Leu Pro Glu Trp Gln Ser Tyr Gln Cys Phe Gly Met Glu Tyr Ala
 660 665 670
 Met Met Val Ile Glu Ser Leu Asp Pro Asp Thr Glu Thr Arg Arg Leu
 675 680 685
 Ser Pro Val Ala Ile Met Gly Asn Gly Tyr Val Asp Leu Ile Asn Gly
 690 695 700
 Pro Gln Asp His Gly Trp Cys Ala Gly Tyr Thr Cys Gln Arg Arg Leu
 705 710 715 720
 Ser Leu Phe His Ser Ile Val Ala Leu Asn Lys Ser Tyr Glu Val Tyr
 725 730 735
 Phe Thr Gly Thr Ser Pro Gln Asn Leu Arg Leu Met Leu Asn Val
 740 745 750
 Asp His Asn Lys Ala Val Leu Val Gly Ile Phe Phe Ser Thr Leu Gln
 755 760 765
 Arg Leu Asp Val Tyr Val Asn Asn Leu Leu Val Cys Pro Lys Thr Thr
 770 775 780
 Ile Trp Asn Ala Gln Gln Lys His Cys Glu Leu Asn Asn His Leu Tyr

785	790	795	800
Lys Asp Gln Phe Leu Pro Asn Leu Asp Ser Thr Val Leu Gly Glu Asn			
805	810	815	
Tyr Phe Asp Gly Thr Tyr Gln Met Leu Tyr Leu Leu Val Lys Gly Thr			
820	825	830	
Ile Pro Val Glu Ile His Thr Ala Thr Val Ile Phe Val Ser Phe Gln			
835	840	845	
Leu Ser Val Ala Thr Glu Asp Asp Phe Tyr Thr Ser His Asn Leu Val			
850	855	860	
Lys Asn Leu Ala Leu Phe Leu Lys Ile Pro Ser Asp Lys Ile Arg Ile			
865	870	875	880
Ser Lys Ile Arg Gly Lys Ser Leu Arg Arg Lys Arg Ser Met Gly Phe			
885	890	895	
Ile Ile Glu Ile Glu Ile Gly Asp Pro Pro Ile Gln Phe Ile Ser Asn			
900	905	910	
Gly Thr Thr Gly Gln Met Gln Leu Ser Glu Leu Gln Glu Ile Ala Gly			
915	920	925	
Ser Leu Gly Gln Ala Val Ile Leu Gly Asn Ile Ser Ser Ile Leu Gly			
930	935	940	
Phe Asn Ile Ser Ser Met Ser Ile Thr Asn Pro Leu Pro Ser Pro Ser			
945	950	955	960
Asp Ser Gly Trp Ile Lys Val Thr Ala Gln Pro Val Glu Arg Ser Ala			
965	970	975	
Phe Pro Val His His Val Ala Phe Val Ser Ser Leu Leu Val Ile Thr			
980	985	990	
Gln Pro Val Ala Ala Gln Pro Gly Gln Pro Phe Pro Gln Gln Pro Ser			
995	1000	1005	
Val Lys Ala Thr Asp Ser Asp Gly Asn Cys Val Ser Val Gly Ile Thr			
1010	1015	1020	

Ala Leu Thr Leu Arg Ala Ile Leu Lys Asp Ser Asn Asn Asn Gln Val
 1025 1030 1035 1040
 Asn Gly Leu Ser Gly Asn Thr Thr Ile Pro Phe Ser Ser Cys Trp Ala
 1045 1050 1055
 Asn Tyr Thr Asp Leu Thr Pro Leu Arg Thr Gly Lys Asn Tyr Lys Ile
 1060 1065 1070
 Glu Phe Ile Leu Asp Asn Val Val Gly Val Glu Ser Arg Thr Phe Ser
 1075 1080 1085
 Leu Leu Ala Glu Ser Val Ser Ser Ser Gly Ser Ser Ser Ser Asn
 1090 1095 1100
 Ser Lys Ala Ser Thr Val Gly Thr Tyr Ala Gln Ile Met Thr Val Val
 1105 1110 1115 1120
 Ile Ser Cys Leu Val Gly Arg Met Trp Leu Leu Glu Ile Phe Met Ala
 1125 1130 1135
 Ala Val Ser Thr Leu Asn Ile Thr Leu Arg Ser Tyr
 1140 1145

<210> 523

<211> 300

<212> PRT

<213> Homo sapiens

<400> 523

Met His Ser Leu Lys Lys Val Thr Phe Glu Asp Val Ala Ile Asp Phe
 1 5 10 15
 Thr Gln Glu Glu Trp Ala Met Met Asp Thr Ser Lys Arg Lys Leu Tyr
 20 25 30
 Arg Asp Val Met Leu Glu Asn Ile Ser His Leu Val Ser Leu Gly Tyr

35	40	45
Gln Ile Ser Lys Ser Tyr Ile Ile Leu Gln Leu Glu Gln Gly Lys Glu		
50	55	60
Leu Trp Arg Glu Gly Arg Glu Phe Leu Gln Asp Gln Asn Pro Asp Arg		
65	70	75
Glu Ser Ala Leu Lys Lys His Met Ile Ser Met His Pro Ile Thr		
85	90	95
Arg Lys Asp Ala Ser Thr Ser Met Thr Met Glu Asn Ser Leu Ile Leu		
100	105	110
Glu Asp Pro Phe Glu Cys Asn Asp Ser Gly Glu Asp Cys Thr His Ser		
115	120	125
Ser Thr Ile Thr Gln Arg Leu Leu Thr His Ser Gly Lys Lys Pro Tyr		
130	135	140
Val Ser Lys Gln Cys Gly Lys Ser Leu Arg Asn Leu Phe Ser Pro Lys		
145	150	155
Pro His Lys Gln Ile His Thr Lys Gly Lys Ser Tyr Gln Cys Asn Leu		
165	170	175
Cys Glu Lys Ala Tyr Thr Asn Cys Phe Arg Leu Arg Arg His Lys Met		
180	185	190
Thr His Thr Gly Glu Arg Pro Tyr Ala Cys His Leu Cys Gly Lys Ala		
195	200	205
Phe Thr Gln Cys Ser His Leu Arg Arg His Glu Lys Thr His Thr Gly		
210	215	220
Glu Arg Pro Tyr Lys Cys His Gln Cys Gly Lys Ala Phe Ile Gln Ser		
225	230	235
Phe Asn Leu Arg Arg His Glu Arg Thr His Leu Gly Lys Lys Cys Tyr		
245	250	255
Glu Cys Asp Lys Ser Gly Lys Ala Phe Ser Gln Ser Ser Gly Phe Arg		
260	265	270

Gly Asn Lys Ile Ile His Thr Gly Glu Lys Pro His Ala Cys Leu Leu

275

280

285

Cys Gly Lys Ala Phe Ser Leu Ser Ser Asp Leu Arg

290

295

300

<210> 524

<211> 1216

<212> PRT

<213> Homo sapiens

<400> 524

Met Ser Gln Ala Gly Asp Val Glu Gly Pro Ser Thr Gly Asp Pro Val

1

5

10

15

Leu Ser Pro Gln His Asn Cys Glu Leu Leu Gln Asn Met Glu Gly Ala

20

25

30

Ser Ser Met Pro Gly Leu Ser Pro Asp Gly Pro Gly Ala Ser Ser Gly

35

40

45

Pro Gly Val Arg Ala Gly Ser Arg Arg Lys Ile Pro Arg Lys Glu Ala

50

55

60

Leu Arg Gly Gly Ser Ser Arg Ala Ala Gly Ala Ala Glu Val Arg Pro

65

70

75

80

Gly Val Leu Glu Leu Leu Ala Val Val Gln Ser Arg Gly Ser Met Leu

85

90

95

Ala Pro Gly Leu His Met Gln Leu Pro Ser Val Pro Thr Gln Gly Arg

100

105

110

Ala Leu Thr Ser Lys Arg Leu Gln Val Ser Leu Cys Asp Ile Leu Asp

115

120

125

Asp Ser Cys Pro Arg Lys Leu Cys Ser Arg Ser Ala Gly Leu Pro Glu

130	135	140
Arg Ala Leu Ala Cys Arg Glu Arg Leu Ala Gly Val Glu Glu Val Ser		
145	150	155
Cys Leu Arg Pro Arg Glu Ala Arg Asp Gly Gly Met Ser Ser Pro Gly		160
165	170	175
Cys Asp Arg Arg Ser Pro Thr Leu Ser Lys Glu Glu Pro Pro Gly Arg		
180	185	190
Pro Leu Thr Ser Ser Pro Asp Pro Val Pro Val Arg Val Arg Lys Lys		
195	200	205
Trp Arg Arg Gln Gly Ala His Ser Glu Cys Glu Glu Gly Ala Gly Asp		
210	215	220
Phe Leu Trp Leu Asp Gln Ser Pro Arg Gly Asp Asn Leu Leu Ser Val		
225	230	235
Gly Asp Pro Pro Gln Val Ala Asp Leu Glu Ser Leu Gly Gly Pro Cys		240
245	250	255
Arg Pro Pro Ser Pro Lys Asp Thr Gly Ser Gly Pro Gly Glu Pro Gly		
260	265	270
Gly Ser Gly Ala Gly Cys Ala Ser Gly Thr Glu Lys Phe Gly Tyr Leu		
275	280	285
Pro Ala Thr Gly Asp Gly Pro Gln Pro Gly Ser Pro Cys Gly Pro Val		
290	295	300
Gly Phe Pro Val Pro Ser Gly Gly Glu Ser Leu Ser Ser Ala Ala Gln		
305	310	315
Ala Pro Pro Gln Ser Ala Ala Leu Cys Leu Gly Ala Ser Ala Gln Ala		320
325	330	335
Ser Ala Glu Gln Gln Glu Ala Val Cys Val Val Arg Thr Gly Ser Asp		
340	345	350
Glu Gly Gln Ala Pro Ala Gln Asp Gln Glu Glu Leu Glu Ala Lys Ala		
355	360	365

Gln Pro Ala Ser Arg Gly Arg Leu Glu Gln Gly Leu Ala Ala Pro Ala
 370 375 380
 Asp Thr Cys Ala Ser Ser Arg Glu Pro Leu Gly Gly Leu Ser Ser Ser
 385 390 395 400
 Leu Asp Thr Glu Ala Ser Arg Ala Cys Ser Gly Pro Phe Met Glu Gln
 405 410 415
 Arg Arg Ser Lys Gly Thr Lys Asn Leu Lys Lys Gly Pro Val Pro Cys
 420 425 430
 Ala Gln Asp Arg Gly Thr Asp Arg Ser Ser Asp Asn Ser His Gln Asp
 435 440 445
 Arg Pro Glu Glu Pro Ser Pro Gly Gly Cys Pro Arg Leu Glu Glu Val
 450 455 460
 Lys Ile Pro His Gly Val Lys Leu Val Cys Tyr Leu Gly Ser Gly Pro
 465 470 475 480
 Val Ile Gln Leu Leu Gly Ala Ile Ser His Gly Gln Ala Gly Gln
 485 490 495
 Leu Pro Pro Lys Leu Glu Val Leu Glu Asp Leu Met Glu Val Ser Ser
 500 505 510
 Pro Ser Pro Ala Gln Arg Leu Arg Arg Lys Lys Arg Pro Met Val Gln
 515 520 525
 Gly Pro Ala Gly Cys Gln Val Phe Gln Pro Ser Pro Ser Gly Gly Thr
 530 535 540
 Ala Gly Asp Pro Gly Gly Leu Ser Asp Pro Phe Tyr Pro Pro Arg Ser
 545 550 555 560
 Gly Ser Leu Ala Leu Gly Asp Pro Ser Ser Asp Pro Ala Cys Ser Gln
 565 570 575
 Ser Gly Pro Met Glu Ala Glu Glu Asp Ser Leu Pro Glu Gln Pro Glu
 580 585 590
 Asp Ser Ala Gln Leu Gln Gln Glu Lys Pro Ser Leu Tyr Ile Gly Val

595	600	605
Arg Gly Thr Val Val Arg Ser Met Gln Glu Val Leu Trp Thr Arg Leu		
610	615	620
Arg Glu Leu Pro Asp Pro Val Leu Ser Glu Glu Val Val Glu Gly Ile		
625	630	635
Ala Ala Gly Ile Glu Ala Ala Leu Trp Asp Leu Thr Gln Gly Thr Asn		
645	650	655
Gly Arg Tyr Lys Thr Lys Tyr Arg Ser Leu Leu Phe Asn Leu Arg Asp		
660	665	670
Pro Arg Asn Leu Asp Leu Phe Leu Lys Val Val His Gly Asp Val Thr		
675	680	685
Pro Tyr Asp Leu Val Arg Met Ser Ser Met Gln Leu Ala Pro Gln Glu		
690	695	700
Leu Ala Arg Trp Arg Asp Gln Glu Glu Lys Arg Gly Leu Asn Ile Ile		
705	710	715
Glu Gln Gln Lys Glu Pro Cys Arg Leu Pro Ala Ser Lys Met Thr		
725	730	735
His Lys Gly Glu Val Glu Ile Gln Arg Asp Met Asp Gln Thr Leu Thr		
740	745	750
Leu Glu Asp Leu Val Gly Pro Gln Met Phe Met Asp Cys Ser Pro Gln		
755	760	765
Ala Leu Pro Ile Ala Ser Glu Asp Thr Thr Gly Gln His Asp His His		
770	775	780
Phe Leu Asp Pro Asn Cys His Ile Cys Lys Asp Trp Glu Pro Ser Asn		
785	790	795
Glu Leu Leu Gly Ser Phe Glu Ala Ala Lys Ser Cys Gly Asp Asn Ile		
805	810	815
Phe Gln Lys Ala Leu Ser Gln Thr Pro Met Pro Ala Pro Glu Met Pro		
820	825	830

Lys Thr Arg Glu Leu Ser Pro Thr Glu Pro Gln Asp Arg Val Pro Pro
 835 840 845
 Ser Gly Leu His Val Pro Ala Ala Pro Thr Lys Ala Leu Pro Cys Leu
 850 855 860
 Pro Pro Trp Glu Gly Val Leu Asp Met Phe Ser Ile Lys Arg Phe Arg
 865 870 875 880
 Ala Arg Ala Gln Leu Val Ser Gly His Ser Cys Arg Leu Val Gln Ala
 885 890 895
 Leu Pro Thr Val Ile Arg Ser Ala Gly Cys Ile Pro Ser Asn Ile Val
 900 905 910
 Trp Asp Leu Leu Ala Ser Ile Cys Pro Ala Lys Ala Lys Asp Val Cys
 915 920 925
 Val Val Arg Leu Cys Pro His Gly Ala Arg Asp Thr Gln Asn Cys Arg
 930 935 940
 Leu Leu Tyr Ser Tyr Leu Asn Asp Arg Gln Arg His Gly Leu Ala Ser
 945 950 955 960
 Val Glu His Met Gly Met Val Leu Leu Pro Leu Pro Ala Phe Gln Pro
 965 970 975
 Leu Pro Thr Arg Leu Arg Pro Leu Gly Gly Pro Gly Leu Trp Ala Leu
 980 985 990
 Pro Val Ser Pro Leu Leu Ser Pro Gly Leu Glu Val Thr His Ser Ser
 995 1000 1005
 Leu Leu Leu Ala Val Leu Leu Pro Lys Glu Gly Leu Pro Asp Thr Ala
 1010 1015 1020
 Gly Ser Ser Pro Trp Leu Gly Lys Val Gln Lys Met Val Ser Phe Asn
 1025 1030 1035 1040
 Ser Lys Val Glu Lys Arg Tyr Tyr Gln Pro Asp Asp Arg Arg Pro Asn
 1045 1050 1055
 Val Pro Leu Lys Gly Thr Pro Pro Gly Gly Ala Trp Gln Gln Ser

1060	1065	1070
Gln Gly Arg Gly Ser Ile Ala Pro Arg Gly Ile Ser Ala Trp Gln Arg		
1075	1080	1085
Pro Pro Arg Gly Arg Gly Leu Trp Pro Glu Pro Glu Asn Trp Gln		
1090	1095	1100
His Pro Gly Arg Gly Gln Trp Pro Pro Glu Pro Gly Leu Arg Gln Ser		
1105	1110	1115
Gln His Pro Tyr Ser Val Ala Pro Ala Gly His Gly Phe Gly Arg Gly		
1125	1130	1135
Gln His Phe His Arg Asp Ser Cys Pro His Gln Ala Leu Leu Arg His		
1140	1145	1150
Leu Glu Ser Leu Ala Thr Met Ser His Gln Leu Gln Ala Leu Leu Cys		
1155	1160	1165
Pro Gln Thr Lys Ser Ser Ile Pro Arg Pro Leu Gln Arg Leu Ser Ser		
1170	1175	1180
Ala Leu Ala Ala Pro Glu Pro Pro Gly Pro Ala Arg Asp Ser Ser Leu		
1185	1190	1195
Gly Pro Thr Asp Glu Ala Gly Ser Glu Cys Pro Phe Pro Arg Lys Ala		
1205	1210	1215

<210> 525

<211> 435

<212> PRT

<213> Homo sapiens

<400> 525

Met Arg Lys Leu Leu Thr Asn Leu Pro Ala Ala Val Leu Ser Ala

1

5

10

15

Gln Val Tyr Ser Ala Val Leu Arg Gly Leu Trp Glu Glu Asn Val Cys
 20 25 30
 Gly Thr Pro Gly Arg Thr Arg Val Cys Thr Ala Leu Leu Tyr Gly Gln
 35 40 45
 Val Cys Pro Phe Gln Asp Ser Thr Asp Gly Leu Arg Thr Ile Thr Ser
 50 55 60
 Ile Leu Phe Asn Trp Pro Pro Glu Asn Thr Ser Val Tyr Tyr Gln Pro
 65 70 75 80
 Pro Gln Arg Ser Ser Phe Arg Ile Lys Leu Ala Phe Arg Asn Leu Ser
 85 90 95
 Trp Pro Gly Leu Gly Leu Glu Asp His Gln Glu Ile Val Leu Gly Gln
 100 105 110
 Leu Val Leu Pro Glu Pro Asn Glu Ala Lys Pro Asp Asp Pro Ala Pro
 115 120 125
 Arg Pro Gly Gln His Ala Leu Thr Met Pro Ala Leu Glu Pro Ala Pro
 130 135 140
 Pro Leu Leu Ala Asp Leu Gly Pro Ala Leu Glu Pro Glu Ser Pro Ala
 145 150 155 160
 Ala Leu Gly Pro Pro Gly Tyr Leu His Ser Ala Pro Gly Pro Ala Pro
 165 170 175
 Ala Pro Gly Glu Glu Pro Pro Gly Thr Val Leu Glu Pro Gln Ser
 180 185 190
 Ala Pro Glu Ser Ser Cys Pro Cys Arg Gly Ser Val Lys Asn Gln Pro
 195 200 205
 Ser Glu Glu Leu Pro Asp Met Thr Thr Phe Pro Pro Arg Leu Leu Ala
 210 215 220
 Glu Gln Leu Thr Leu Met Asp Ala Glu Leu Phe Lys Lys Val Val Leu
 225 230 235 240
 Tyr Glu Cys Leu Gly Cys Ile Trp Gly Gln Gly His Leu Lys Gly Asn

245	250	255
Glu His Met Ala Pro Thr Val Arg Ala Thr Ile Ala His Phe Asn Arg		
260	265	270
Leu Thr Asn Cys Ile Thr Thr Ser Cys Leu Gly Asp His Ser Met Arg		
275	280	285
Ala Arg Asp Arg Ala Arg Val Val Glu His Trp Ile Lys Val Ala Arg		
290	295	300
Glu Cys Leu Ser Leu Asn Asn Phe Ser Ser Val His Val Ile Val Ser		
305	310	315
Ala Leu Cys Ser Asn Pro Ile Gly Gln Leu His Lys Thr Trp Ala Gly		
325	330	335
Val Ser Ser Lys Ser Met Lys Glu Leu Lys Glu Leu Cys Lys Lys Asp		
340	345	350
Thr Ala Val Lys Arg Asp Leu Leu Ile Lys Arg Asp Asp Gly Glu Asn		
355	360	365
Asn Gly Asn Ser Tyr Arg Lys Leu Ser Pro Gln Arg Pro Cys Glu Val		
370	375	380
Ala Val Val Cys Ile Thr Leu Tyr Arg Arg Gly Asn Ser Leu Arg Glu		
385	390	395
Ala Arg Leu Gln Asp Trp Val Thr His Thr Gly Ser Val Asp Leu Gly		
405	410	415
Gln Trp Arg Gly Ala Leu Arg Trp Pro Pro Arg Arg Gly Thr Pro Arg		
420	425	430
Glu Pro Arg		
435		

<210> 526

<211> 171

<212> PRT

<213> Homo sapiens

<400> 526

Met Gly Lys Ser Glu Ile Lys Arg Thr Gly Gly Phe Gly Ser Thr Asn
 1 5 10 15

Lys Gln Gly Lys Ala Ala Tyr Trp Val Asn Gln Ile Thr Asp Lys Cys
 20 25 30

Pro Thr Cys Glu Ile Thr Ile Gln Gly Lys Lys Phe Lys Gly Leu Val
 35 40 45

Asp Thr Arg Ala Asp Ile Ser Ile Ile Ser Leu Gln His Trp Pro Ser
 50 55 60

Thr Trp Pro Ile Gln Pro Thr Gln Phe Asn Ile Val Gly Val Gly Glu
 65 70 75 80

Ala Pro Glu Val Tyr Gln Ser Ser Val Leu Pro Cys Glu Gly Pro
 85 90 95

Asp Gly Gln Pro Glu Thr Ile Gln Pro Ile Ile Thr Ser Val Ser Ile
 100 105 110

Asn Leu Trp Gly Arg Asp Leu Leu Gln Gln Cys Arg Ala Gln Val Leu
 115 120 125

Ile Pro Glu Gln Leu Tyr Ser Pro Gln Ser Gln His Met Met His Glu
 130 135 140

Met Gly Tyr Val Pro Gly Met Gly Leu Gln Lys Asn Leu Gln Gly Leu
 145 150 155 160

Lys Ser Ser Arg Gln Arg Leu Gly Asn Asn Phe
 165 170

<210> 527

<211> 599

<212> PRT

<213> Homo sapiens

<400> 527

Met	Asp	Pro	Pro	Met	Asp	Asp	Gln	Pro	Gly	Glu	Lys	Glu	Leu	Val	Lys
1				5				10					15		
Arg	Ser	Gln	Leu	Asp	Gly	Glu	Gly	Asp	Gly	Pro	Leu	Ser	Asn	Gln	Leu
				20				25				30			
Ser	Ala	Ser	Ser	Thr	Ile	Asn	Pro	Val	Pro	Leu	Val	Gly	Leu	Gln	Lys
				35				40				45			
Pro	Glu	Met	Ser	Leu	Pro	Val	Lys	Pro	Gly	Gln	Gly	Asp	Ser	Glu	Ala
				50				55			60				
Ser	Ser	Pro	Phe	Thr	Pro	Val	Ala	Asp	Glu	Asp	Ser	Val	Val	Phe	Ser
				65				70			75		80		
Lys	Leu	Thr	Tyr	Leu	Gly	Cys	Ala	Ser	Val	Asn	Ala	Pro	Arg	Ser	Glu
				85				90			95				
Val	Glu	Ala	Leu	Arg	Met	Met	Ser	Ile	Leu	Arg	Ser	Gln	Cys	Gln	Ile
				100				105			110				
Ser	Leu	Asp	Val	Thr	Leu	Ser	Val	Pro	Asn	Val	Ser	Glu	Gly	Ile	Val
				115				120			125				
Arg	Leu	Leu	Asp	Pro	Gln	Thr	Asn	Thr	Glu	Ile	Ala	Asn	Tyr	Pro	Ile
				130				135			140				
Tyr	Lys	Ile	Leu	Phe	Cys	Val	Arg	Gly	His	Asp	Gly	Thr	Pro	Glu	Ser
				145				150			155		160		
Asp	Cys	Phe	Ala	Phe	Thr	Glu	Ser	His	Tyr	Asn	Ala	Glu	Leu	Phe	Arg
				165				170			175				
Ile	His	Val	Phe	Arg	Cys	Glu	Ile	Gln	Glu	Ala	Val	Ser	Arg	Ile	Leu
				180				185			190				

Tyr Ser Phe Ala Thr Ala Phe Arg Arg Ser Ala Lys Gln Thr Pro Leu
 195 200 205
 Ser Ala Thr Ala Ala Pro Gln Thr Pro Asp Ser Asp Ile Phe Thr Phe
 210 215 220
 Ser Val Ser Leu Glu Ile Lys Glu Asp Asp Gly Lys Gly Tyr Phe Ser
 225 230 235 240
 Ala Val Pro Lys Asp Lys Asp Arg Gln Cys Phe Lys Leu Arg Gln Gly
 245 250 255
 Ile Asp Lys Ile Val Ile Tyr Val Gln Gln Thr Thr Asn Lys Glu
 260 265 270
 Leu Ala Ile Glu Arg Cys Phe Gly Leu Leu Ser Pro Gly Lys Asp
 275 280 285
 Val Arg Asn Ser Asp Met His Leu Leu Asp Leu Glu Ser Met Gly Lys
 290 295 300
 Ser Ser Asp Gly Lys Ser Tyr Val Ile Thr Gly Ser Trp Asn Pro Lys
 305 310 315 320
 Ser Pro His Phe Gln Val Val Asn Glu Glu Thr Pro Lys Asp Lys Val
 325 330 335
 Leu Phe Met Thr Thr Ala Val Asp Leu Val Ile Thr Glu Val Gln Glu
 340 345 350
 Pro Val Arg Phe Leu Leu Glu Thr Lys Val Arg Val Cys Ser Pro Asn
 355 360 365
 Glu Arg Leu Phe Trp Pro Phe Ser Lys Arg Ser Thr Thr Glu Asn Phe
 370 375 380
 Phe Leu Lys Leu Lys Gln Ile Lys Gln Arg Glu Arg Lys Asn Asn Thr
 385 390 395 400
 Asp Thr Leu Tyr Glu Val Val Cys Leu Glu Ser Glu Ser Glu Arg Glu
 405 410 415
 Arg Arg Lys Thr Thr Ala Ser Pro Ser Val Arg Leu Pro Gln Ser Gly

420	425	430
Ser Gln Ser Ser Val Ile Pro Ser Pro Pro Glu Asp Asp Glu Glu Glu		
435	440	445
Asp Asn Asp Glu Pro Leu Leu Ser Gly Ser Gly Asp Val Ser Lys Glu		
450	455	460
Cys Ala Glu Lys Ile Leu Glu Thr Trp Gly Glu Leu Leu Ser Lys Trp		
465	470	475
His Leu Asn Leu Asn Val Arg Pro Lys Gln Leu Ser Ser Leu Val Arg		
485	490	495
Asn Gly Val Pro Glu Ala Leu Arg Gly Glu Val Trp Gln Leu Leu Ala		
500	505	510
Gly Cys His Asn Asn Asp His Leu Val Glu Lys Tyr Arg Ile Leu Ile		
515	520	525
Thr Lys Glu Ser Pro Gln Asp Ser Ala Ile Thr Arg Asp Ile Asn Arg		
530	535	540
Thr Phe Pro Ala His Asp Tyr Phe Lys Asp Thr Gly Gly Asp Gly Gln		
545	550	555
Asp Ser Leu Tyr Lys Ile Cys Lys Val Phe His Val Lys Lys Lys		
565	570	575
Asp Ser Ile Leu Ser Gly Gly Ser Thr Leu Lys Leu His Lys Lys Gln		
580	585	590
Leu Gln Ser Val Ile Cys Ile		
595		

<210> 528

<211> 1340

<212> PRT

<213> Homo sapiens

<400> 528

Met Leu Arg Lys Gly Ala Asn Arg Tyr Leu Thr Val Lys Lys Lys Asp
 1 5 10 15
 Gly Ser Glu Thr Ala His Ala Met Met Thr Cys Asn Leu Thr His Asn
 20 25 30
 Thr Lys His Ala Val Arg Ser Leu Ile Gln Arg Phe Pro Val Thr Asn
 35 40 45
 Lys Glu Arg Thr Glu Leu Leu Pro Lys Thr Glu Arg Gly Asn Val Phe
 50 55 60
 Ala Val Glu Ala Glu Asn Arg Glu Met Ser Lys Thr Ser Gly Arg Leu
 65 70 75 80
 Asn Asn Gly Ile Pro Gln Ile Pro Val Lys Arg Gly Glu Ser Glu Phe
 85 90 95
 Asp Ser Phe Arg Gln Ser Leu Pro Val Phe Glu Lys Gln Glu Glu Ile
 100 105 110
 Val Lys Ile Ile Lys Glu Asn Lys Val Val Leu Ile Val Gly Glu Thr
 115 120 125
 Gly Ser Gly Lys Thr Thr Gln Ile Pro Gln Phe Leu Leu Asp Asp Cys
 130 135 140
 Phe Lys Asn Gly Ile Pro Cys Arg Ile Phe Cys Thr Gln Pro Arg Arg
 145 150 155 160
 Leu Ala Ala Ile Ala Val Ala Glu Arg Val Ala Ala Glu Arg Arg Glu
 165 170 175
 Arg Ile Gly Gln Thr Ile Gly Tyr Gln Ile Arg Leu Glu Ser Arg Val
 180 185 190
 Ser Pro Lys Thr Leu Leu Thr Phe Cys Thr Asn Gly Val Leu Leu Arg
 195 200 205
 Thr Leu Met Ala Gly Asp Ser Thr Leu Ser Thr Val Thr His Val Ile

210	215	220
Val Asp Glu Val His Glu Arg Asp Arg Phe Ser Asp Phe Leu Leu Thr		
225	230	235
Lys Leu Arg Asp Leu Leu Gln Lys His Pro Thr Leu Lys Leu Ile Leu		
245	250	255
Ser Ser Ala Ala Leu Asp Val Asn Leu Phe Ile Arg Tyr Phe Gly Ser		
260	265	270
Cys Pro Val Ile Tyr Ile Gln Gly Arg Pro Phe Glu Val Lys Glu Met		
275	280	285
Phe Leu Glu Asp Ile Leu Arg Thr Thr Gly Tyr Thr Asn Lys Glu Met		
290	295	300
Leu Lys Tyr Lys Lys Glu Lys Gln Gln Glu Glu Lys Gln Gln Thr Thr		
305	310	315
Leu Thr Glu Trp Tyr Ser Ala Gln Glu Asn Ser Phe Lys Pro Glu Ser		
325	330	335
Gln Arg Gln Arg Thr Val Leu Asn Val Thr Asp Glu Tyr Asp Leu Leu		
340	345	350
Asp Asp Gly Gly Asp Ala Val Phe Ser Gln Leu Thr Glu Lys Asp Val		
355	360	365
Asn Cys Leu Glu Pro Trp Leu Ile Lys Glu Met Asp Ala Cys Leu Ser		
370	375	380
Asp Ile Trp Leu His Lys Asp Ile Asp Ala Phe Ala Gln Val Phe His		
385	390	395
Leu Ile Leu Thr Glu Asn Val Ser Val Asp Tyr Arg His Ser Glu Thr		
405	410	415
Ser Ala Thr Ala Leu Met Val Ala Ala Gly Arg Gly Phe Ala Ser Gln		
420	425	430
Val Glu Gln Leu Ile Ser Met Gly Ala Asn Val His Ser Lys Ala Ser		
435	440	445

Asn Gly Trp Met Ala Leu Asp Trp Ala Lys His Phe Gly Gln Thr Glu
 450 455 460
 Ile Val Asp Leu Leu Glu Ser Tyr Ser Ala Ser Leu Glu Phe Gly Asn
 465 470 475 480
 Leu Asp Glu Ser Ser Leu Val Gln Thr Asn Gly Ser Asp Leu Ser Ala
 485 490 495
 Glu Asp Arg Glu Leu Leu Lys Ala Tyr His His Ser Phe Asp Asp Glu
 500 505 510
 Lys Val Asp Leu Asp Leu Ile Met His Leu Leu Tyr Asn Ile Cys His
 515 520 525
 Ser Cys Asp Ala Gly Ala Val Leu Ile Phe Leu Pro Gly Tyr Asp Glu
 530 535 540
 Ile Val Gly Leu Arg Asp Arg Ile Leu Phe Asp Asp Lys Arg Phe Ala
 545 550 555 560
 Asp Asn Thr His Arg Tyr Gln Val Phe Met Leu His Ser Asn Met Gln
 565 570 575
 Thr Ser Asp Gln Lys Lys Val Leu Lys Asn Pro Pro Ala Gly Val Arg
 580 585 590
 Lys Ile Ile Leu Ser Thr Asn Ile Ala Glu Thr Ser Ile Thr Val Asn
 595 600 605
 Asp Val Val Phe Val Ile Asp Ser Gly Lys Val Lys Glu Lys Ser Phe
 610 615 620
 Asp Ala Leu Asn Phe Val Thr Met Leu Lys Met Val Trp Ile Ser Lys
 625 630 635 640
 Ala Ser Ala Ile Gln Arg Lys Gly Arg Ala Gly Arg Cys Arg Pro Gly
 645 650 655
 Ile Cys Phe Arg Leu Phe Ser Arg Leu Arg Phe Gln Asn Met Leu Glu
 660 665 670
 Phe Gln Thr Pro Glu Leu Leu Arg Met Pro Leu Gln Glu Leu Cys Leu

675	680	685
His Thr Lys Leu Leu Ala Pro Val Asn Cys Pro Ile Ala Asp Phe Leu		
690	695	700
Met Lys Ala Pro Glu Pro Pro Ala Leu Ile Val Arg Asn Ala Val		
705	710	715
Gln Met Leu Lys Thr Ile Asp Ala Met Asp Thr Trp Glu Asp Leu Thr		
725	730	735
Glu Leu Gly Tyr His Leu Ala Asp Leu Pro Val Glu Pro His Leu Gly		
740	745	750
Lys Met Val Leu Cys Ala Val Val Leu Lys Cys Leu Asp Pro Ile Leu		
755	760	765
Thr Ile Ala Cys Thr Leu Ala Tyr Arg Asp Pro Phe Val Leu Pro Thr		
770	775	780
Gln Ala Ser Gln Lys Arg Ala Ala Met Leu Cys Arg Lys Arg Phe Thr		
785	790	795
Ala Gly Ala Phe Ser Asp His Met Ala Leu Leu Arg Ala Phe Gln Ala		
805	810	815
Trp Gln Lys Ala Arg Ser Asp Gly Trp Glu Arg Ala Phe Cys Glu Lys		
820	825	830
Asn Phe Leu Ser Gln Ala Thr Met Glu Ile Ile Gly Met Arg Thr		
835	840	845
Gln Leu Leu Gly Gln Leu Arg Ala Ser Gly Phe Val Arg Ala Arg Gly		
850	855	860
Gly Gly Asp Ile Arg Asp Val Asn Thr Asn Ser Glu Asn Trp Ala Val		
865	870	875
Val Lys Ala Ala Leu Val Ala Gly Met Tyr Pro Asn Leu Val His Val		
885	890	895
Asp Arg Glu Asn Leu Val Leu Thr Gly Pro Lys Glu Lys Lys Val Arg		
900	905	910

Phe His Pro Ala Ser Val Leu Ser Gln Pro Gln Tyr Lys Lys Ile Pro
 915 920 925
 Pro Ala Asn Gly Gln Ala Ala Ala Ile Lys Ala Leu Pro Thr Asp Trp
 930 935 940
 Leu Ile Tyr Asp Glu Met Thr Arg Ala His Arg Ile Ala Asn Ile Arg
 945 950 955 960
 Cys Cys Ser Ala Val Thr Pro Val Thr Ile Leu Val Phe Cys Gly Pro
 965 970 975
 Ala Arg Leu Ala Ser Asn Ala Leu Gln Glu Pro Ser Ser Phe Arg Val
 980 985 990
 Asp Gly Ile Pro Asn Asp Ser Ser Asp Ser Glu Met Glu Asp Lys Thr
 995 1000 1005
 Thr Ala Asn Leu Ala Ala Leu Lys Leu Asp Glu Trp Leu His Phe Thr
 1010 1015 1020
 Leu Glu Pro Glu Ala Ala Ser Leu Leu Leu Gln Leu Arg Gln Lys Trp
 1025 1030 1035 1040
 His Ser Leu Phe Leu Arg Arg Met Arg Ala Pro Ser Lys Pro Trp Ser
 1045 1050 1055
 Gln Val Asp Glu Ala Thr Ile Arg Ala Ile Ile Ala Val Leu Ser Thr
 1060 1065 1070
 Glu Glu Gln Ser Ala Gly Leu Gln Gln Pro Ser Gly Ile Gly Gln Arg
 1075 1080 1085
 Pro Arg Pro Met Ser Ser Glu Glu Leu Pro Leu Ala Ser Ser Trp Arg
 1090 1095 1100
 Ser Asn Asn Ser Arg Lys Ser Ser Ala Asp Thr Glu Phe Ser Asp Glu
 1105 1110 1115 1120
 Cys Thr Thr Ala Glu Arg Val Leu Met Lys Ser Pro Ser Pro Ala Leu
 1125 1130 1135
 His Pro Pro Gln Lys Tyr Lys Asp Arg Gly Ile Leu His Pro Lys Arg

1140	1145	1150
Gly Thr Glu Asp Arg Ser Asp Gln Ser Ser Leu Lys Ser Thr Asp Ser		
1155	1160	1165
Ser Ser Tyr Pro Ser Pro Cys Ala Ser Pro Ser Pro Pro Ser Ser Gly		
1170	1175	1180
Lys Gly Ser Lys Ser Pro Ser Pro Arg Pro Asn Met Pro Val Arg Tyr		
1185	1190	1195
Phe Ile Met Lys Ser Ser Asn Leu Arg Asn Leu Glu Ile Ser Gln Gln		
1205	1210	1215
Lys Gly Ile Trp Ser Thr Thr Pro Ser Asn Glu Arg Lys Leu Asn Arg		
1220	1225	1230
Ala Phe Trp Glu Ser Ser Ile Val Tyr Leu Val Phe Ser Val Gln Gly		
1235	1240	1245
Ser Gly His Phe Gln Gly Phe Ser Arg Met Ser Ser Glu Ile Gly Arg		
1250	1255	1260
Glu Lys Ser Gln Asp Trp Gly Ser Ala Gly Leu Gly Val Phe Lys		
1265	1270	1275
Val Glu Trp Ile Arg Lys Glu Ser Leu Pro Phe Gln Phe Ala His His		
1285	1290	1295
Leu Leu Asn Pro Trp Asn Asp Asn Lys Lys Val Gln Ile Ser Arg Asp		
1300	1305	1310
Gly Gln Glu Leu Glu Pro Gln Val Gly Glu Gln Leu Leu Gln Leu Trp		
1315	1320	1325
Glu Arg Leu Pro Leu Gly Glu Lys Asn Thr Thr Asp		
1330	1335	1340

<210> 529

<211> 574

<212> PRT

<213> Homo sapiens

<400> 529

Met Thr Ala Gly Ser Val Cys Val Pro Gln Ile Ile Pro Leu Arg Val
 1 5 10 15
 Pro Gln Pro Gly Lys Ala Asn His Glu Ile Asp Asn Asn Thr Leu Leu
 20 25 30
 Glu Met Lys Ser Asp Thr Pro Asp Val Asn Ile Tyr Tyr Thr Leu Asp
 35 40 45
 Gly Ser Lys Pro Glu Phe Leu Lys Arg Ile Gly Tyr Gly Glu Asn Asn
 50 55 60
 Thr Phe Lys Tyr Ile Lys Pro Ile Thr Leu Pro Asp Gly Lys Ile Gln
 65 70 75 80
 Val Lys Ala Ile Ala Val Ser Lys Asp Cys Arg Gln Ser Gly Ile Val
 85 90 95
 Thr Lys Val Phe His Val Asp Tyr Glu Pro Pro Asn Ile Val Ser Pro
 100 105 110
 Glu Asp Asn Val Glu Asn Val Leu Lys Asp Ser Ser Arg Gln Glu Phe
 115 120 125
 Lys Asn Gly Phe Val Gly Ser Lys Leu Lys Lys Tyr Lys Asn Ser
 130 135 140
 Glu Asn Gln Arg Ser Trp Asn Val Asn Leu Arg Lys Phe Pro Glu Ser
 145 150 155 160
 Pro Leu Glu Ile Pro Ala Tyr Gly Gly Ser Gly Ser Arg Pro Pro
 165 170 175
 Thr Arg Gln Ser Gln Ser Pro Gly Phe Ala His Val Ser Gly Gln Lys
 180 185 190
 Cys Leu Thr Ser Thr Glu Ile Met Arg Ile Gln Arg Glu Thr Asp Phe

195	200	205
Leu Lys Cys Ala His Cys Leu Ala Pro Arg Pro Ser Asp Pro Phe Ala		
210	215	220
Arg Phe Cys Gln Glu Cys Gly Ser Pro Val Pro Pro Ile Phe Gly Cys		
225	230	235
Arg Leu Pro Pro Pro Glu Gly Ala Gln Met Gly Leu Cys Ala Glu Cys		
245	250	255
Arg Ser Leu Val Pro Met Asn Thr Pro Ile Cys Val Val Cys Glu Ala		
260	265	270
Pro Leu Ala Leu Gln Leu Gln Pro Gln Ala Ser Leu His Leu Lys Glu		
275	280	285
Lys Val Ile Cys Arg Ala Cys Gly Thr Gly Asn Pro Ala His Leu Arg		
290	295	300
Tyr Cys Val Thr Cys Glu Gly Ala Leu Pro Ser Ser Gln Glu Ser Met		
305	310	315
Cys Ser Gly Asp Lys Ala Pro Pro Pro Thr Gln Lys Gly Gly Thr		
325	330	335
Ile Ser Cys Tyr Arg Cys Gly Arg Trp Asn Leu Trp Glu Ala Ser Phe		
340	345	350
Cys Gly Trp Cys Gly Ala Met Leu Gly Ile Pro Ala Gly Cys Ser Val		
355	360	365
Cys Pro Lys Cys Gly Ala Ser Asn His Leu Ser Ala Arg Phe Cys Gly		
370	375	380
Ser Cys Gly Ile Cys Val Lys Ser Leu Val Lys Leu Ser Leu Asp Arg		
385	390	395
Ser Leu Ala Leu Ala Ala Glu Glu Pro Arg Pro Phe Ser Glu Ser Leu		
405	410	415
Asn Ile Pro Leu Pro Arg Ser Asp Val Gly Thr Lys Arg Asp Ile Gly		
420	425	430

Thr Gln Thr Val Gly Leu Phe Tyr Pro Ser Gly Lys Leu Leu Ala Lys
 435 440 445
 Lys Glu Gln Glu Leu Ala Ser Gln Lys Gln Arg Gln Glu Lys Met Ser
 450 455 460
 Asp His Lys Pro Leu Leu Thr Ala Ile Ser Pro Gly Arg Gly Tyr Trp
 465 470 475 480
 Arg Arg Gln Leu Asp His Ile Ser Ala His Leu Arg Cys Tyr Ala Gln
 485 490 495
 Asn Asn Pro Glu Phe Arg Ala Leu Ile Ala Glu Pro Arg Met Gly Lys
 500 505 510
 Leu Ile Ser Ala Thr Val His Glu Asp Gly Cys Glu Val Ser Ile Arg
 515 520 525
 Leu Asn Tyr Ser Gln Val Ser Asn Lys Val Arg Lys Leu Arg Leu Arg
 530 535 540
 Glu Val Lys Gln Pro Ala Ser Ser Lys Gly Thr Lys Leu Val Ser Gly
 545 550 555 560
 Arg Pro Arg Ile His Thr Trp Gln Pro Glu Thr Phe Pro Ser
 565 570

<210> 530
 <211> 534
 <212> PRT
 <213> Homo sapiens

<400> 530
 Met Gly Val Pro Thr Ala Val Ser Ala Thr Pro Val Arg Ala Asp Ala
 1 5 10 15
 Ser Ser Lys Pro Gln Pro Leu Leu Gln Ser Gln Pro His Leu Phe Phe

20	25	30
Phe Pro Lys Leu Leu Ser Arg Leu Leu Gly Ser Pro Leu Pro Val His		
35	40	45
Ser Ala Gly Pro Gly Pro Leu Leu Thr Arg Met Pro Gln Ala Thr Thr		
50	55	60
Val Ser Leu Arg Leu Gly Ser Trp Ser Leu Thr Glu Asp Arg Asp Val		
65	70	75
Ser Gly Glu Trp Pro Arg Ala Phe Pro Asp Thr Pro Pro Gly Met Thr		
85	90	95
Thr Ser Val Phe Pro Val Ala Asp Ala Cys His Ser Val Lys Ser Leu		
100	105	110
Gln Arg Gln Pro Gly Ala Ser Pro Ser Gln Glu Arg Lys Pro Thr Gly		
115	120	125
Val Ser Val Ile Tyr Trp Glu Arg Leu Leu Leu Gly Ser Arg Ser Asp		
130	135	140
Gln Ala Ser Ile Ser Leu Arg Leu Thr Ser Pro Leu Arg Pro Pro Lys		
145	150	155
Ser Ser Arg Pro Arg Glu Lys Thr Phe Thr Glu Tyr Arg Val Pro Gly		
165	170	175
Arg Gln Pro Arg Thr Pro Glu Arg Gln Lys Pro Cys Ala Gln Glu Val		
180	185	190
Pro Gly Arg Ala Phe Gly Asn Ala Ser Asp Leu Lys Ala Ala Ser Gly		
195	200	205
Gly Arg Asp Arg Arg Met Gly Ala Ala Trp Gln Glu Pro His Arg Leu		
210	215	220
Leu Gly Gly Gln Glu Pro Ser Thr Trp Asp Glu Leu Gly Glu Ala Leu		
225	230	235
His Ala Gly Glu Lys Ser Phe Glu Cys Arg Ala Cys Ser Lys Val Phe		
245	250	255

Val Lys Ser Ser Asp Leu Leu Lys His Leu Arg Thr His Thr Gly Glu
 260 265 270
 Arg Pro Tyr Glu Cys Thr Gln Cys Gly Lys Ala Phe Ser Gln Thr Ser
 275 280 285
 His Leu Thr Gln His Gln Arg Ile His Ser Gly Glu Thr Pro Tyr Ala
 290 295 300
 Cys Pro Val Cys Gly Lys Ala Phe Arg His Ser Ser Ser Leu Val Arg
 305 310 315 320
 His Gln Arg Ile His Thr Ala Glu Lys Ser Phe Arg Cys Ser Glu Cys
 325 330 335
 Gly Lys Ala Phe Ser His Gly Ser Asn Leu Ser Gln His Arg Lys Ile
 340 345 350
 His Ala Gly Gly Arg Pro Tyr Ala Cys Ala Gln Cys Gly Arg Arg Phe
 355 360 365
 Cys Arg Asn Ser His Leu Ile Gln His Glu Arg Thr His Thr Gly Glu
 370 375 380
 Lys Pro Phe Val Cys Ala Leu Arg Gly Ala Ala Phe Ser Gln Gly Ser
 385 390 395 400
 Ser Leu Phe Leu His Gln Arg Val His Thr Gly Glu Lys Pro Phe Ala
 405 410 415
 Cys Ala Gln Cys Gly Arg Ser Phe Ser Arg Ser Ser Asn Leu Thr Gln
 420 425 430
 His Gln Leu Leu His Thr Gly Glu Arg Pro Phe Arg Cys Val Asp Cys
 435 440 445
 Gly Lys Gly Phe Ala Lys Gly Ala Val Leu Leu Ser His Arg Arg Ile
 450 455 460
 His Thr Gly Glu Lys Pro Phe Val Cys Thr Gln Cys Gly Arg Ala Phe
 465 470 475 480
 Arg Glu Arg Pro Ala Leu Leu His His Gln Arg Ile His Thr Thr Glu

485	490	495
Lys Thr Asn Ala Ala Ala Pro Asp Cys Thr Pro Gly Pro Gly Phe Leu		
500	505	510
Gln Gly His His Arg Lys Val Arg Arg Gly Gly Lys Pro Ser Pro Val		
515	520	525
Leu Lys Pro Ala Lys Val		
530		

<210> 531

<211> 1300

<212> PRT

<213> Homo sapiens

<400> 531

Met Pro Pro Asp Val Ile Arg Asp Ile Leu Glu Gly Val Leu Arg Leu			
1	5	10	15

Met Gly Ile Phe Asp Thr Ser Trp Val Ser Met Lys Ser Phe Leu Ala			
20	25	30	

Lys Arg Gly Val Arg Glu Asp Ile Ala Thr Phe Asp Ala Arg Asn Ile			
35	40	45	

Ser Lys Glu Ile Arg Glu Ser Val Glu Glu Leu Leu Phe Lys Asn Lys			
50	55	60	

Gly Ser Phe Asp Pro Lys Asn Ala Lys Arg Ala Ser Thr Ala Ala Ala			
65	70	75	80

Pro Leu Ala Ala Trp Val Lys Ala Asn Ile Gln Tyr Ser His Val Leu			
85	90	95	

Glu Arg Ile His Pro Leu Glu Thr Glu Gln Ala Gly Leu Glu Ser Asn			
100	105	110	

Leu Lys Lys Thr Glu Asp Arg Lys Arg Lys Leu Glu Glu Leu Leu Asn
 115 120 125
 Ser Val Gly Gln Lys Val Ser Glu Leu Lys Glu Lys Phe Gln Ser Arg
 130 135 140
 Thr Ser Glu Ala Ala Lys Leu Glu Ala Glu Val Ser Lys Ala Gln Glu
 145 150 155 160
 Thr Ile Lys Ala Ala Glu Val Leu Ile Asn Gln Leu Asp Arg Glu His
 165 170 175
 Lys Arg Trp Asn Ala Gln Val Val Glu Ile Thr Glu Glu Leu Ala Thr
 180 185 190
 Leu Pro Lys Arg Ala Gln Leu Ala Ala Phe Ile Thr Tyr Leu Ser
 195 200 205
 Ala Ala Pro Glu Ser Leu Arg Lys Thr Cys Leu Glu Glu Trp Thr Lys
 210 215 220
 Ser Ala Gly Leu Glu Lys Phe Asp Leu Arg Arg Phe Leu Cys Thr Glu
 225 230 235 240
 Ser Glu Gln Leu Ile Trp Lys Ser Glu Gly Leu Pro Ser Asp Asp Leu
 245 250 255
 Ser Ile Glu Asn Ala Leu Val Ile Leu Gln Ser Arg Val Cys Pro Phe
 260 265 270
 Leu Ile Asp Pro Ser Ser Gln Ala Thr Glu Trp Leu Lys Thr His Leu
 275 280 285
 Lys Asp Ser Arg Leu Glu Val Ile Asn Gln Gln Asp Ser Asn Phe Ile
 290 295 300
 Thr Ala Leu Glu Leu Ala Val Arg Phe Gly Lys Thr Leu Ile Ile Gln
 305 310 315 320
 Glu Met Asp Gly Val Glu Pro Val Leu Tyr Pro Leu Leu Arg Arg Asp
 325 330 335
 Leu Val Ala Gln Gly Pro Arg Tyr Val Val Gln Ile Gly Asp Lys Ile

340	345	350
Ile Asp Tyr Asn Glu Glu Phe Arg Leu Phe Leu Ser Thr Arg Asn Pro		
355	360	365
Asn Pro Phe Ile Pro Pro Asp Ala Ala Ser Ile Val Thr Glu Val Asn		
370	375	380
Phe Thr Thr Thr Arg Ser Gly Leu Arg Gly Gln Leu Leu Ala Leu Thr		
385	390	395
Ile Gln His Glu Lys Pro Asp Leu Glu Gln Lys Thr Lys Leu Leu		
405	410	415
Gln Gln Glu Glu Asp Lys Lys Ile Gln Leu Ala Lys Leu Glu Glu Ser		
420	425	430
Leu Leu Glu Thr Leu Ala Thr Ser Gln Gly Asn Ile Leu Glu Asn Lys		
435	440	445
Asp Leu Ile Glu Ser Leu Asn Gln Thr Lys Ala Ser Ser Ala Leu Ile		
450	455	460
Gln Glu Ser Leu Lys Glu Ser Tyr Lys Leu Gln Ile Ser Leu Asp Gln		
465	470	475
Glu Arg Asp Ala Tyr Leu Pro Leu Ala Glu Ser Ala Ser Lys Met Tyr		
485	490	495
Phe Ile Ile Ser Asp Leu Ser Lys Ile Asn Asn Met Tyr Arg Phe Ser		
500	505	510
Leu Ala Ala Phe Leu Arg Leu Phe Gln Arg Ala Leu Gln Asn Lys Gln		
515	520	525
Asp Ser Glu Asn Thr Glu Gln Arg Ile Gln Ser Leu Ile Ser Ser Leu		
530	535	540
Gln His Met Val Tyr Glu Tyr Ile Cys Arg Cys Leu Phe Lys Ala Asp		
545	550	555
Gln Leu Met Phe Ala Leu His Phe Val Arg Gly Met His Pro Glu Leu		
565	570	575

Phe Gln Glu Asn Glu Trp Asp Thr Phe Thr Gly Val Val Val Gly Asp
 580 585 590
 Met Leu Arg Lys Ala Asp Ser Gln Gln Lys Ile Arg Asp Gln Leu Pro
 595 600 605
 Ser Trp Ile Asp Gln Glu Arg Ser Trp Ala Val Ala Thr Leu Lys Ile
 610 615 620
 Ala Leu Pro Ser Leu Tyr Gln Thr Leu Cys Phe Glu Asp Ala Ala Leu
 625 630 635 640
 Trp Arg Thr Tyr Tyr Asn Asn Ser Met Cys Glu Gln Glu Phe Pro Ser
 645 650 655
 Ile Leu Ala Lys Lys Val Ser Leu Phe Gln Gln Ile Leu Val Val Gln
 660 665 670
 Ala Leu Arg Pro Asp Arg Leu Gln Ser Ala Met Ala Leu Phe Ala Cys
 675 680 685
 Lys Thr Leu Gly Leu Lys Glu Val Ser Pro Leu Pro Leu Asn Leu Lys
 690 695 700
 Arg Leu Tyr Lys Glu Thr Leu Glu Ile Glu Pro Ile Leu Ile Ile
 705 710 715 720
 Ser Pro Gly Ala Asp Pro Ser Gln Glu Leu Gln Glu Leu Ala Asn Ala
 725 730 735
 Glu Arg Ser Gly Glu Cys Tyr His Gln Val Ala Met Gly Gln Gly Gln
 740 745 750
 Ala Asp Leu Ala Ile Gln Met Leu Lys Glu Cys Ala Arg Asn Gly Asp
 755 760 765
 Trp Leu Cys Leu Lys Asn Leu His Leu Val Val Ser Trp Leu Pro Val
 770 775 780
 Leu Glu Lys Glu Leu Asn Thr Leu Gln Pro Lys Asp Thr Phe Arg Leu
 785 790 795 800
 Trp Leu Thr Ala Glu Val His Pro Asn Phe Thr Pro Ile Leu Leu Gln

805	810	815
Ser Ser Leu Lys Ile Thr Tyr Glu Ser Pro Pro Gly Leu Lys Lys Asn		
820	825	830
Leu Met Arg Thr Tyr Glu Ser Trp Thr Pro Glu Gln Ile Ser Lys Lys		
835	840	845
Asp Asn Thr His Arg Ala His Ala Leu Phe Ser Leu Ala Trp Phe His		
850	855	860
Ala Ala Cys Gln Glu Arg Arg Asn Tyr Ile Pro Gln Gly Trp Thr Lys		
865	870	875
Phe Tyr Glu Phe Ser Leu Ser Asp Leu Arg Ala Gly Tyr Asn Ile Ile		
885	890	895
Asp Arg Leu Phe Asp Gly Ala Lys Asp Val Gln Trp Glu Phe Val His		
900	905	910
Gly Leu Leu Glu Asn Ala Ile Tyr Gly Gly Arg Ile Asp Asn Tyr Phe		
915	920	925
Asp Leu Arg Val Leu Gln Ser Tyr Leu Lys Gln Phe Phe Asn Ser Ser		
930	935	940
Val Ile Asp Val Phe Asn Gln Arg Asn Lys Lys Ser Ile Phe Pro Tyr		
945	950	955
Ser Val Ser Leu Pro Gln Ser Cys Ser Ile Leu Asp Tyr Arg Ala Val		
965	970	975
Ile Glu Lys Ile Pro Glu Asp Asp Lys Pro Ser Phe Phe Gly Leu Pro		
980	985	990
Ala Asn Ile Ala Arg Ser Ser Gln Arg Met Ile Ser Ser Gln Val Ile		
995	1000	1005
Ser Gln Leu Arg Ile Leu Gly Arg Ser Ile Thr Ala Gly Ser Lys Phe		
1010	1015	1020
Asp Arg Glu Ile Trp Ser Asn Glu Leu Ser Pro Val Leu Asn Leu Trp		
1025	1030	1035
		1040

Lys Lys Leu Asn Gln Asn Ser Asn Leu Ile His Gln Lys Val Pro Pro
 1045 1050 1055
 Pro Asn Asp Arg Gln Gly Ser Pro Ile Leu Ser Phe Ile Ile Leu Glu
 1060 1065 1070
 Gln Phe Asn Ala Ile Arg Leu Val Gln Ser Val His Gln Ser Leu Ala
 1075 1080 1085
 Ala Leu Ser Lys Val Ile Arg Gly Thr Thr Leu Leu Ser Ser Glu Val
 1090 1095 1100
 Gln Lys Leu Ala Ser Ala Leu Leu Asn Gln Lys Cys Pro Leu Ala Trp
 1105 1110 1115 1120
 Gln Ser Lys Trp Glu Gly Pro Glu Asp Pro Leu Gln Tyr Leu Arg Gly
 1125 1130 1135
 Leu Val Ala Arg Ala Leu Ala Ile Gln Asn Trp Val Asp Lys Ala Glu
 1140 1145 1150
 Lys Gln Ala Leu Leu Ser Glu Thr Leu Asp Leu Ser Glu Leu Phe His
 1155 1160 1165
 Pro Asp Thr Phe Leu Asn Ala Leu Arg Gln Glu Thr Ala Arg Ala Val
 1170 1175 1180
 Gly Arg Ser Val Asp Ser Leu Lys Phe Val Ala Ser Trp Lys Gly Arg
 1185 1190 1195 1200
 Leu Gln Glu Ala Lys Leu Gln Ile Lys Ile Ser Gly Leu Leu Leu Glu
 1205 1210 1215
 Gly Cys Ser Phe Asp Gly Asn Gln Leu Ser Glu Asn Gln Leu Asp Ser
 1220 1225 1230
 Pro Ser Val Ser Ser Val Leu Pro Cys Phe Met Gly Trp Ile Pro Gln
 1235 1240 1245
 Asp Ala Cys Gly Pro Tyr Ser Pro Asp Glu Cys Ile Ser Leu Pro Val
 1250 1255 1260
 Tyr Thr Ser Ala Glu Arg Asp Arg Val Val Thr Asn Ile Asp Val Pro

1265	1270	1275	1280
Cys Gly Gly Asn Gln Asp Gln Trp Ile Gln Cys Gly Ala Ala Leu Phe			
1285		1290	1295
Leu Lys Asn Gln			
1300			

<210> 532

<211> 944

<212> PRT

<213> Homo sapiens

<400> 532

Met Gly Ser Asp Gly Ile Leu Arg Leu Ser Thr Ser Ala Leu Asn Asn

1	5	10	15
---	---	----	----

Glu Phe Phe Ala Tyr Ala Ala Gln Gly Trp Lys Gln Arg Leu Ala Glu

20	25	30
----	----	----

Gly Glu Phe Thr Pro Glu Met Gln Leu Arg Ile Arg Gln Glu Ile Glu

35	40	45
----	----	----

Lys Glu Lys Lys Thr Glu Pro Trp Lys Glu Phe Phe Glu Arg Phe

50	55	60
----	----	----

Tyr Gly Glu Lys Leu Gly Met Ser Arg Glu Glu Ser Val Lys Leu Thr

65	70	75	80
----	----	----	----

Thr Gly Pro Asn Asn Ala Gly Ala Gln Ser Ser Ser Cys Gly Thr

85	90	95
----	----	----

Ser Gly Leu Pro Val Ser Ala Gln Thr Ala Leu Ala Glu Gln Gln Pro

100	105	110
-----	-----	-----

Lys Ser Met Lys Ser Pro Ala Ser Pro Glu Pro Gly Phe Cys Ala Thr

115	120	125
-----	-----	-----

Leu Cys Pro Met Val Glu Ile Pro Pro Lys Asp Ile Met Ala Glu Leu
 130 135 140
 Glu Ser Glu Asp Ile Leu Ile Pro Glu Glu Ser Val Ile Gln Glu Glu
 145 150 155 160
 Ile Ala Glu Glu Val Glu Thr Ser Ile Cys Glu Cys Gln Asp Glu Asn
 165 170 175
 His Lys Thr Ile Pro Glu Phe Ser Glu Glu Ala Glu Ser Leu Thr Asn
 180 185 190
 Ser His Glu Glu Pro Gln Ile Ala Pro Pro Glu Asp Asn Leu Glu Ser
 195 200 205
 Cys Val Met Met Asn Asp Val Leu Glu Thr Leu Pro His Ile Glu Val
 210 215 220
 Lys Ile Glu Gly Lys Ser Glu Ser Pro Gln Glu Glu Met Thr Val Val
 225 230 235 240
 Ile Asp Gln Leu Glu Val Cys Asp Ser Leu Ile Pro Ser Thr Ser Ser
 245 250 255
 Met Thr His Val Ser Asp Thr Glu His Lys Glu Ser Glu Thr Ala Val
 260 265 270
 Glu Thr Ser Thr Pro Lys Ile Lys Thr Gly Ser Ser Ser Leu Glu Gly
 275 280 285
 Gln Phe Pro Asn Glu Gly Ile Ala Ile Asp Met Glu Leu Gln Ser Asp
 290 295 300
 Pro Glu Glu Gln Leu Ser Glu Asn Ala Cys Ile Ser Glu Thr Ser Phe
 305 310 315 320
 Ser Ser Glu Ser Pro Glu Gly Ala Cys Thr Ser Leu Pro Ser Pro Gly
 325 330 335
 Gly Glu Thr Gln Ser Thr Ser Glu Glu Ser Cys Thr Pro Ala Ser Leu
 340 345 350
 Glu Thr Thr Phe Cys Ser Glu Val Ser Ser Thr Glu Asn Thr Asp Lys

355	360	365
Tyr Asn Gln Arg Asn Ser Thr Asp Glu Asn Phe His Ala Ser Leu Met		
370	375	380
Ser Glu Ile Ser Pro Ile Ser Thr Ser Pro Glu Ile Ser Glu Ala Ser		
385	390	395
Leu Met Ser Asn Leu Pro Leu Thr Ser Glu Ala Ser Pro Val Ser Asn		400
405	410	415
Leu Pro Leu Thr Ser Glu Thr Ser Pro Met Ser Asp Leu Pro Leu Thr		
420	425	430
Ser Lys Thr Ser Ser Val Ser Ser Met Leu Leu Thr Ser Glu Thr Thr		
435	440	445
Phe Val Ser Ser Leu Pro Leu Pro Ser Glu Thr Ser Pro Ile Ser Asn		
450	455	460
Ser Ser Ile Asn Glu Arg Met Ala His Gln Gln Arg Lys Ser Pro Ser		
465	470	475
Val Ser Glu Glu Pro Leu Ser Pro Gln Lys Asp Glu Ser Ser Ala Thr		480
485	490	495
Ala Lys Pro Leu Gly Glu Asn Leu Thr Ser Gln Gln Lys Asn Leu Ser		
500	505	510
Asn Thr Pro Glu Pro Ile Ile Met Ser Ser Ser Ile Ala Pro Glu		
515	520	525
Ala Phe Pro Ser Glu Asp Leu His Asn Lys Thr Leu Ser Gln Gln Thr		
530	535	540
Cys Lys Ser His Val Asp Thr Glu Lys Pro Tyr Pro Ala Ser Ile Pro		
545	550	555
Glu Leu Ala Ser Thr Glu Met Ile Lys Val Lys Asn His Ser Val Leu		560
565	570	575
Gln Arg Thr Glu Lys Lys Val Leu Pro Ser Pro Leu Glu Leu Ser Val		
580	585	590

Phe Ser Glu Gly Thr Asp Asn Lys Gly Asn Glu Leu Pro Ser Ala Lys
 595 600 605
 Leu Gln Asp Lys Gln Tyr Ile Ser Ser Val Asp Lys Ala Pro Phe Ser
 610 615 620
 Glu Gly Ser Arg Asn Lys Thr His Lys Gln Gly Ser Thr Gln Ser Arg
 625 630 635 640
 Leu Glu Thr Ser His Thr Ser Lys Ser Ser Glu Pro Ser Lys Ser Pro
 645 650 655
 Asp Gly Ile Arg Asn Glu Ser Arg Asp Ser Glu Ile Ser Lys Arg Lys
 660 665 670
 Thr Ala Glu Gln His Ser Phe Gly Ile Cys Lys Glu Lys Arg Ala Arg
 675 680 685
 Ile Glu Asp Asp Gln Ser Thr Arg Asn Ile Ser Ser Ser Pro Pro
 690 695 700
 Glu Lys Glu Gln Pro Pro Arg Glu Glu Pro Arg Val Pro Pro Leu Lys
 705 710 715 720
 Ile Gln Leu Ser Lys Ile Gly Pro Pro Phe Ile Ile Lys Ser Gln Pro
 725 730 735
 Val Ser Lys Pro Glu Ser Arg Ala Ser Thr Ser Thr Ser Val Ser Gly
 740 745 750
 Gly Arg Asn Thr Gly Ala Arg Thr Leu Ala Asp Ile Lys Ala Arg Ala
 755 760 765
 Gln Gln Ala Arg Ala Gln Arg Glu Ala Ala Ala Ala Ala Val Ala
 770 775 780
 Ala Ala Ala Ser Ile Val Ser Gly Ala Met Gly Ser Pro Gly Glu Gly
 785 790 795 800
 Gly Lys Thr Arg Thr Leu Ala His Ile Lys Glu Gln Thr Lys Ala Lys
 805 810 815
 Leu Phe Ala Lys His Gln Ala Arg Ala His Leu Phe Gln Thr Ser Lys

820	825	830
Glu Thr Arg Leu Pro Pro Pro Leu Ser Ser Lys Glu Gly Pro Pro Asn		
835	840	845
Leu Glu Val Ser Ser Thr Pro Glu Thr Lys Met Glu Gly Ser Thr Gly		
850	855	860
Val Ile Ile Val Asn Pro Asn Cys Arg Ser Pro Ser Asn Lys Ser Ala		
865	870	875
His Leu Arg Glu Thr Thr Val Leu Gln Gln Ser Leu Asn Pro Ser		
885	890	895
Lys Leu Pro Glu Thr Ala Thr Asp Leu Ser Val His Ser Ser Asp Glu		
900	905	910
Asn Ile Pro Val Ser His Leu Ser Glu Lys Ile Val Ser Ser Thr Ser		
915	920	925
Ser Glu Asn Ser Ser Val Pro Met Leu Phe Asn Lys Asn Ser Val Pro		
930	935	940

<210> 533

<211> 1161

<212> PRT

<213> Homo sapiens

<400> 533

Met Cys Ser Thr Pro Gly Met Pro Ala Pro Gly Ala Ser Leu Ala Leu

1 5 10 15

Arg Val Ser Phe Val Asp Val His Pro Asp Val Ile Pro Val Gln Leu

20 25 30

Trp Gly Leu Val Gly Glu Arg Arg Gly Glu Tyr Leu Arg Leu Ser Arg

35 40 45

Glu Ile Gln Glu Ala Ala Ala Thr Arg Gly Gln Trp Ala Leu Gly Ser
 50 55 60
 Ala Ser Ala Ser Pro Gly Glu Leu Cys Leu Val Gln Val Gly Leu Leu
 65 70 75 80
 Trp His Arg Cys Arg Val Val Ser Arg Gln Ala Gln Glu Ser Arg Val
 85 90 95
 Phe Leu Leu Asp Glu Gly Arg Thr Ile Thr Ala Gly Ala Gly Ser Leu
 100 105 110
 Ala Pro Gly Arg Arg Glu Phe Phe Asn Leu Pro Ser Glu Val Leu Gly
 115 120 125
 Cys Val Leu Ala Gly Leu Val Pro Ala Gly Cys Gly Ala Gly Ser Gly
 130 135 140
 Glu Pro Pro Gln His Trp Pro Ala Asp Ala Val Asp Phe Leu Ser Asn
 145 150 155 160
 Leu Gln Gly Lys Glu Val His Gly Cys Val Leu Asp Val Leu Leu
 165 170 175
 His Arg Leu Val Leu Leu Glu Val Pro Asp Val Phe Gln Gln Met Arg
 180 185 190
 Glu Leu Gly Leu Ala Arg Arg Val Pro Asp Ser Leu Phe Arg Ser Leu
 195 200 205
 Leu Glu Arg Tyr Leu Thr Ala Ala Thr Ala Ser Val Gly Ser Gly Val
 210 215 220
 Pro Val Leu Ser Arg Val Pro Leu Lys Gln Lys Gln Pro Gly Leu Asp
 225 230 235 240
 Tyr Phe Tyr Pro Gln Leu Gln Leu Gly Val Thr Glu Ala Val Val Ile
 245 250 255
 Thr Gln Val Cys His Pro His Arg Ile His Cys Gln Leu Arg Ser Val
 260 265 270
 Ser Gln Glu Ile His Arg Leu Ser Glu Ser Met Ala Gln Val Tyr Arg

275	280	285
Gly Ser Thr Gly Thr Gly Asp Glu Asn Ser Thr Ser Ala Thr Trp Glu		
290	295	300
Glu Arg Glu Glu Ser Pro Asp Lys Pro Gly Ser Pro Cys Ala Ser Cys		
305	310	315
Gly Leu Asp Gly His Trp Tyr Arg Ala Leu Leu Leu Glu Thr Phe Arg		
325	330	335
Pro Gln Arg Cys Ala Gln Val Leu His Val Asp Tyr Gly Arg Lys Glu		
340	345	350
Leu Val Ser Cys Ser Ser Leu Arg Tyr Leu Leu Pro Glu Tyr Phe Arg		
355	360	365
Met Pro Val Val Thr Tyr Pro Cys Ala Leu Tyr Gly Leu Trp Asp Gly		
370	375	380
Gly Arg Gly Trp Ser Arg Ser Gln Val Gly Asp Leu Lys Thr Leu Ile		
385	390	395
Leu Gly Lys Ala Val Asn Ala Lys Ile Glu Phe Tyr Cys Ser Phe Glu		
405	410	415
His Val Tyr Tyr Val Ser Leu Tyr Gly Glu Asp Gly Ile Asn Leu Asn		
420	425	430
Arg Val Phe Gly Val Gln Ser Cys Cys Leu Ala Asp Arg Val Leu Gln		
435	440	445
Ser Gln Ala Thr Glu Glu Glu Pro Glu Thr Ser Gln Ser Gln Ser		
450	455	460
Pro Ala Glu Glu Val Asp Glu Glu Ile Ser Leu Pro Ala Leu Arg Ser		
465	470	475
Ile Arg Leu Lys Met Asn Ala Phe Tyr Asp Ala Gln Val Glu Phe Val		
485	490	495
Lys Asn Pro Ser Glu Phe Trp Ile Arg Leu Arg Lys His Asn Val Thr		
500	505	510

Phe Ser Lys Leu Met Arg Arg Met Cys Gly Phe Tyr Ser Ser Ala Ser
 515 520 525
 Lys Leu Asp Gly Val Val Leu Lys Pro Glu Pro Asp Asp Leu Cys Cys
 530 535 540
 Val Lys Trp Lys Glu Asn Gly Tyr Tyr Arg Ala Ile Val Thr Lys Leu
 545 550 555 560
 Asp Asp Lys Ser Val Asp Val Phe Leu Val Asp Arg Gly Asn Ser Glu
 565 570 575
 Asn Val Asp Trp Tyr Asp Val Arg Met Leu Leu Pro Gln Phe Arg Gln
 580 585 590
 Leu Pro Ile Leu Ala Val Lys Cys Thr Leu Ala Asp Ile Trp Pro Leu
 595 600 605
 Gly Lys Thr Trp Ser Gln Glu Ala Val Ser Phe Phe Lys Lys Thr Val
 610 615 620
 Leu His Lys Glu Leu Val Ile His Ile Leu Asp Lys Gln Asp His Gln
 625 630 635 640
 Tyr Val Ile Glu Ile Leu Asp Glu Ser Arg Thr Gly Glu Glu Asn Ile
 645 650 655
 Ser Lys Val Ile Ala Gln Ala Gly Tyr Ala Lys Tyr Gln Glu Phe Glu
 660 665 670
 Thr Lys Glu Asn Ile Leu Val Asn Ala His Ser Pro Gly His Val Ser
 675 680 685
 Asn His Phe Thr Thr Glu Ser Asn Lys Ile Pro Phe Ala Lys Thr Gly
 690 695 700
 Glu Gly Glu Gln Lys Ala Lys Arg Glu Asn Lys Thr Thr Ser Val Ser
 705 710 715 720
 Lys Ala Leu Ser Asp Thr Thr Val Val Thr Asn Gly Ser Thr Glu Leu
 725 730 735
 Val Val Gln Glu Lys Val Lys Arg Ala Ser Val Tyr Phe Pro Leu Met

740	745	750
Gln Asn Cys Leu Glu Ile Lys Pro Gly Ser Ser Ser Lys Gly Glu Leu		
755	760	765
Glu Val Gly Ser Thr Val Glu Val Arg Val Ser Tyr Val Glu Asn Pro		
770	775	780
Gly Tyr Phe Trp Cys Gln Leu Thr Arg Asn Ile Gln Gly Leu Lys Thr		
785	790	795
Leu Met Ser Asp Ile Gln Tyr Tyr Cys Lys Asn Thr Ala Ala Pro His		
805	810	815
Gln Arg Asn Thr Leu Ala Cys Leu Ala Lys Arg Thr Val Asn Arg Gln		
820	825	830
Trp Ser Arg Ala Leu Ile Ser Gly Ile Gln Ser Val Glu His Val Asn		
835	840	845
Val Thr Phe Val Asp Tyr Gly Asp Arg Glu Met Val Ser Val Lys Asn		
850	855	860
Ile Tyr Ser Ile Ser Glu Glu Phe Leu Lys Val Lys Ala Gln Ala Phe		
865	870	875
Arg Cys Ser Leu Tyr Asn Leu Ile Gln Pro Val Gly Gln Asn Pro Phe		
885	890	895
Val Trp Asp Val Lys Ala Ile Gln Ala Phe Asn Glu Phe Ile Asp Asn		
900	905	910
Ala Trp Gln Lys Asn Leu Glu Leu Lys Cys Thr Ile Phe Ala Leu Ala		
915	920	925
Ser Ile Asn Glu Glu Leu Phe Asn Ile Val Asp Leu Leu Thr Pro Phe		
930	935	940
Gln Ser Ala Cys His Phe Leu Val Glu Lys Arg Leu Ala Arg Pro Val		
945	950	955
Lys Leu Gln Lys Pro Leu Glu Ser Ser Val Gln Leu His Ser Tyr Phe		
965	970	975

Tyr Ser Thr His Asp Met Lys Ile Gly Ser Glu Glu Leu Val Tyr Ile
 980 985 990
 Thr His Ile Asp Asp Pro Trp Thr Phe Tyr Cys Gln Leu Ala Arg Asn
 995 1000 1005
 Ala Asn Ile Leu Glu Gln Leu Ser Cys Ser Ile Thr Gln Leu Ser Lys
 1010 1015 1020
 Val Leu Leu Asn Leu Lys Thr Ser Pro Leu Asn Pro Gly Thr Leu Cys
 1025 1030 1035 1040
 Leu Ala Lys Tyr Thr Asp Gly Asn Trp Tyr Arg Gly Ile Val Ile Glu
 1045 1050 1055
 Lys Glu Pro Lys Lys Val Phe Phe Val Asp Phe Gly Asn Ile Tyr Val
 1060 1065 1070
 Val Thr Ser Asp Asp Leu Leu Pro Ile Pro Ser Asp Ala Tyr Asp Val
 1075 1080 1085
 Leu Leu Leu Pro Met Gln Ala Val Arg Cys Ser Leu Ser Asp Ile Pro
 1090 1095 1100
 Asp His Ile Pro Glu Glu Val Val Trp Phe Gln Glu Thr Ile Leu
 1105 1110 1115 1120
 Asp Lys Ser Leu Lys Ala Leu Val Val Ala Lys Asp Pro Asp Gly Thr
 1125 1130 1135
 Leu Ile Ile Glu Leu Tyr Gly Asp Asn Ile Gln Ile Ser Ala Ser Ile
 1140 1145 1150
 Asn Lys Lys Leu Gly Leu Leu Ser Tyr
 1155 1160

<210> 534

<211> 762

<212> PRT

<213> Homo sapiens

<400> 534

Met Gly Asp Leu Lys Ser Gly Phe Glu Glu Val Asp Gly Val Arg Leu
 1 5 10 15

Gly Tyr Leu Ile Ile Lys Gly Lys Gln Met Phe Ala Leu Ser Gln Val
 20 25 30

Phe Thr Asp Leu Leu Lys Asn Ile Pro Arg Thr Thr Val His Lys Arg
 35 40 45

Met Asp His Leu Lys Val Lys Lys His His Cys Asp Leu Glu Glu Leu
 50 55 60

Arg Lys Leu Lys Ala Ile Asn Ser Ile Ala Phe His Ala Ala Lys Cys
 65 70 75 80

Thr Leu Ile Ser Arg Glu Asp Val Glu Ala Leu Tyr Thr Ser Cys Lys
 85 90 95

Thr Glu Arg Val Leu Lys Thr Lys Arg Arg Arg Val Gly Arg Ala Leu
 100 105 110

Ala Thr Lys Ala Pro Pro Glu Arg Ala Ala Ala Ser Pro Arg
 115 120 125

Pro Gly Phe Trp Lys Asp Lys His Gln Leu Trp Arg Gly Leu Ser Gly
 130 135 140

Ala Ala Arg Pro Leu Pro Ile Ser Ala Gln Ser Gln Arg Pro Gly Ala
 145 150 155 160

Ala Ala Ala Arg Pro Ala Ala His Leu Pro Gln Ile Phe Ser Lys Tyr
 165 170 175

Pro Gly Ser His Tyr Pro Glu Ile Val Arg Ser Pro Cys Lys Pro Pro
 180 185 190

Leu Asn Tyr Glu Thr Ala Pro Leu Gln Gly Asn Tyr Val Ala Phe Pro
 195 200 205

Ser Asp Pro Ala Tyr Phe Arg Ser Leu Leu Cys Ser Lys His Pro Ala
 210 215 220
 Ala Ala Ala Ala Gly Ala Thr Cys Leu Glu Arg Phe His Leu Val Asn
 225 230 235 240
 Gly Phe Cys Pro Pro Pro His
 245 250 255
 His His His His His Arg Ala Gln Pro Pro Gln Gln Ser His His Pro
 260 265 270
 Pro His His His Arg Pro Gln Pro His Leu Gly Ser Phe Pro Glu Ser
 275 280 285
 Cys Ser Ser Asp Ser Glu Ser Ser Ser Tyr Ser Asp His Ala Ala Asn
 290 295 300
 Asp Ser Asp Phe Gly Ser Ser Leu Ser Ser Ser Asn Ser Val Ser
 305 310 315 320
 Ser Glu Glu Glu Glu Glu Gly Glu Glu Glu Glu Glu Glu Glu
 325 330 335
 Glu Glu Glu Glu Gly Ser Gly Ala Ser Asp Ser Ser Glu Val Ser
 340 345 350
 Ser Glu Glu Glu Asp Ser Ser Thr Glu Ser Asp Ser Ser Ser Gly Ser
 355 360 365
 Ser Gln Val Ser Val Gln Ser Ile Arg Phe Arg Arg Thr Ser Phe Cys
 370 375 380
 Lys Pro Pro Ser Val Gln Ala Gln Ala Asn Phe Leu Tyr His Leu Ala
 385 390 395 400
 Ser Ala Ala Ala Ala Thr Lys Pro Ala Ala Phe Glu Asp Ala Gly Arg
 405 410 415
 Leu Pro Asp Leu Lys Ser Ser Val Lys Ala Glu Ser Pro Ala Glu Trp
 420 425 430
 Asn Leu Gln Ser Trp Ala Pro Lys Ala Ser Pro Val Tyr Cys Pro Ala

435	440	445
Ser Leu Gly Ser Cys Phe Ala Glu Ile Arg Asn Asp Arg Val Ser Glu		
450	455	460
Ile Thr Phe Pro His Ser Glu Ile Ser Asn Ala Val Lys Arg Thr Asp		
465	470	475
Leu Thr Ile Asn Cys Leu Ala Glu Gly Ala Ser Ser Pro Ser Pro Lys		
485	490	495
Thr Asn Asn Ala Phe Pro Gln Gln Arg Ile Leu Arg Glu Ala Arg Lys		
500	505	510
Cys Leu Gln Thr Thr Pro Thr Thr His Cys Ala Asp Asn Asn Thr Ile		
515	520	525
Ala Ala Arg Phe Leu Asn Asn Asp Ser Ser Gly Ala Glu Ala Asn Ser		
530	535	540
Glu Lys Tyr Ser Lys Ile Leu His Cys Pro Glu Phe Ala Thr Asp Leu		
545	550	555
Pro Ser Ser Gln Thr Asp Pro Glu Val Asn Ala Ala Gly Ala Ala Ala		
565	570	575
Thr Lys Ala Glu Asn Pro Cys Thr Asp Thr Gly Asp Lys Thr Leu Pro		
580	585	590
Phe Leu His Asn Ile Lys Ile Lys Val Glu Asp Ser Ser Ala Asn Glu		
595	600	605
Glu Tyr Glu Pro His Leu Phe Thr Asn Lys Leu Lys Cys Glu Cys Asn		
610	615	620
Asp Thr Lys Gly Glu Phe Tyr Ser Val Thr Glu Ser Lys Glu Glu Asp		
625	630	635
Ala Leu Leu Thr Thr Ala Lys Glu Gly Phe Ala Cys Pro Glu Lys Glu		
645	650	655
Thr Pro Ser Leu Asn Pro Leu Ala Gln Ser Gln Gly Leu Ser Cys Thr		
660	665	670

Leu Gly Ser Pro Lys Pro Glu Asp Gly Glu Tyr Lys Phe Gly Ala Arg
 675 680 685
 Val Arg Lys Asn Tyr Arg Thr Leu Val Leu Gly Lys Arg Pro Val Leu
 690 695 700
 Gln Thr Pro Pro Val Lys Pro Asn Leu Lys Ser Ala Arg Ser Pro Arg
 705 710 715 720
 Pro Thr Gly Lys Thr Glu Thr Asn Glu Gly Thr Leu Asp Asp Phe Thr
 725 730 735
 Val Ile Asn Arg Arg Lys Lys Val Ala Ser Asn Val Ala Ser Ala Val
 740 745 750
 Lys Arg Pro Phe His Phe Met Ala Asn Lys
 755 760

<210> 535

<211> 619

<212> PRT

<213> Homo sapiens

<400> 535

Met Glu Gly Asp Ala Glu Thr Asn Val Leu Glu Cys Ala Asn Gln Arg
 1 5 10 15
 Leu Val Ile Ser Glu Thr Asp Gly Glu Ile Leu Thr Pro Gly Trp Asp
 20 25 30
 Thr Gln Asp Arg Met Gly Val Glu Ser Arg Thr Asn Ile Gln Glu Leu
 35 40 45
 Gly Asn Arg Asn Gln Arg Glu Ala Gly Gly Glu Asn Leu Pro Glu Thr
 50 55 60
 Gln Ala His Met Gly Glu Asn Gln Glu Gln Leu Arg Cys Lys Ile Asp

65	70	75	80
Ala Glu Thr Gln Thr Pro Glu Trp Glu Asn Gln Asp Lys Asn Gly Ser			
85	90	95	
Glu Asp Ala Val Glu Thr Gln Thr Phe Glu Lys Lys Asp Lys Lys Glu			
100	105	110	
Ala Gly Glu Glu Asp Gly Glu Glu Ile Gln Ala Gln Gly Leu Gly Lys			
115	120	125	
Gln Gly Gln Thr Gly Asp Glu Asn Gly Glu Thr Gln Thr Pro Gln			
130	135	140	
Trp Glu Lys Gln Asp Gln Met Lys Gly Asp Ala Asp Val Glu Ile Gln			
145	150	155	160
Met Glu Glu Gly Arg Asn Lys Asp Gln Val Gly Gly Gln Asp Ala Ala			
165	170	175	
Gln Thr Gln Ser Cys Gly Arg Glu Asn Val Gly Glu Val Lys Lys Glu			
180	185	190	
Asn Ser Val Glu Thr Gln Ala Leu Asp Trp Gly Lys Gln Glu Cys Val			
195	200	205	
Gly Asn Gly Asn Val Thr Glu Ile Gln Thr Pro Arg Trp Glu Lys His			
210	215	220	
Asp Gln Gly Gly Ser Lys Lys Ala Lys Lys Thr Gln Ala Ser Gly Gly			
225	230	235	240
Glu Asn Gln Lys Gln Leu Ser His Glu Ile Gln Val Gly Trp Gly Asn			
245	250	255	
Lys Gly Leu Arg Arg Asp Glu Asp Ala Lys Glu Thr Gln Ile Ala Thr			
260	265	270	
Lys Lys Lys Leu Arg Glu Ile Arg Glu Lys Asp Trp Val Val Ile Gln			
275	280	285	
Ala Leu Trp Trp Gly Asn Arg Arg Gln Val Ala Ser Glu Ile Tyr Arg			
290	295	300	

Glu Phe Glu Ile Leu Cys Trp Glu Asn Gln Asn Trp Ile Gly Gly Glu
 305 310 315 320
 His Arg Ala Glu Ile Gln Ala Ser Glu Lys Arg Asp Gln Arg Lys Asp
 325 330 335
 Gly Cys Glu Asp Gly Thr Asn Ile Leu Ala Pro Glu Ala Glu Ile Gln
 340 345 350
 Glu Gln Leu Lys Gly Glu Thr Asp Val Glu Thr Gln Ser Asn Glu Pro
 355 360 365
 Leu Arg Glu Glu Asp Gly Thr Asp Ile Gln Ser Leu Gly Arg Arg Glu
 370 375 380
 Val Lys Gly Glu Asp Asp Lys Asp Thr Gln Glu Leu Gly Arg Lys Asn
 385 390 395 400
 Gln Gly Gln Leu Gly Asn Glu Phe Ser Gly Lys Ile His Ile Pro Lys
 405 410 415
 Gly Lys Asn Gln Glu His Ile Arg Gly Glu Asp Gly Ala His Thr Gln
 420 425 430
 Ile Ser Glu Ser Gly Asn Trp Gly Lys Leu Thr Ser Gln Ile Asp Gly
 435 440 445
 Glu Met His Ser Ala Glu Trp Lys Lys Asp Gln Gln Ile Gly Gly Glu
 450 455 460
 Asn Gly Ala Glu Ile Gln Ile Gln Gly Lys Arg Asn Leu Arg Glu Val
 465 470 475 480
 Gly Gly Glu Asp Gly Val Lys Thr Trp Ala Pro Gly Lys Glu Thr Gln
 485 490 495
 Ser Gln Phe Arg Ser Asp Leu Gly Arg Lys Ile Leu Leu Ser Glu Trp
 500 505 510
 Lys Ser Gln Lys Gln Met Gly Ser Glu Asn Gly Thr Glu Ile Gln Ala
 515 520 525
 Pro Val Glu Arg Asn Gln Arg Glu Pro Gly Gly Glu Asp Gly Val Lys

530	535	540
Thr Gln Arg Pro Lys Arg Glu Asn Glu Asp Gln Leu Asp Ser Glu Ile		
545	550	555
Gly Gly Ser His Ser Pro Gly Arg Arg Asn Trp Glu Leu Ile Gly Lys		
565	570	575
Asp Val Ala Glu Asn Gln Ala Ser Glu Lys Arg Asn Gln Arg Glu Val		
580	585	590
Gly Asn Glu Asp Gly Arg Met Ile Trp Arg Leu Arg Gly Lys Asn Trp		
595	600	605
Arg Leu Arg Ala Lys Lys Gln Thr Val Lys Lys		
610	615	

<210> 536
<211> 164
<212> PRT
<213> *Homo sapiens*

<400> 536
 Met Asn Val Leu Val Trp Glu Asp Cys Ile Ala Glu Gln Ala Glu Val
 1 5 10 15
 Leu His Asn Asp Ser Tyr Gly Val Ile Ile Asp Cys Ser Pro Lys Gly
 20 25 30
 Met Phe Ser Leu Asn Cys Thr Ser Gln Ser Ala Cys His Gly His Thr
 35 40 45
 Met Phe Ser Trp Ser Glu Gln Asn Gly Gln Met Val Glu Met Ile Arg
 50 55 60
 Ser Met Ala Arg Val Pro Ile Ile Trp Lys His Gly Gly Ile Val Ala
 65 70 75 80

Pro Gln Pro Gln Met Ile Trp Pro Ala Val Gly Ala Lys His Lys Asp
 85 90 95
 Leu Trp Lys Leu Leu Met Ala Leu Asn Lys Ile Lys Ile Trp Glu Arg
 100 105 110
 Ile Lys Lys His Leu Glu Gly His Ser Arg Asn Leu Asp Ile Ala Lys
 115 120 125
 Leu Lys Glu Gln Ile Phe Lys Ala Ser Gln Ala His Leu Thr Leu Met
 130 135 140
 Pro Gly Thr Gly Val Leu Glu Gly Ala Ala Asp Gly Leu Ala Ala Ile
 145 150 155 160
 Asn Pro Leu Lys

<210> 537

<211> 236

<212> PRT

<213> Homo sapiens

<400> 537

Met Ser Ser Thr Glu Ser Ala Gly Arg Thr Ala Asp Lys Ser Pro Arg
 1 5 10 15
 Gln Gln Val Asp Arg Leu Leu Val Gly Leu Arg Trp Arg Arg Leu Glu
 20 25 30
 Glu Pro Leu Gly Phe Ile Lys Val Leu Gln Trp Leu Phe Ala Ile Phe
 35 40 45
 Ala Phe Gly Ser Cys Gly Ser Tyr Ser Gly Glu Thr Gly Ala Met Val
 50 55 60
 Arg Cys Asn Asn Glu Ala Lys Asp Val Ser Ser Ile Ile Val Ala Phe

65	70	75	80
Gly Tyr Pro Phe Arg Leu His Arg Ile Gln Tyr Glu Met Pro Leu Cys			
85	90		95
Asp Glu Gly Ser Ser Ser Lys Thr Met His Leu Met Gly Asp Phe Ser			
100	105		110
Ala Pro Ala Glu Phe Phe Val Thr Leu Gly Ile Phe Ser Phe Phe Tyr			
115	120		125
Thr Met Ala Ala Leu Val Ile Tyr Leu Arg Phe His Asn Leu Tyr Thr			
130	135		140
Glu Asn Lys Arg Phe Pro Leu Val Asp Phe Cys Val Thr Val Ser Phe			
145	150	155	160
Thr Phe Phe Trp Leu Val Ala Ala Ala Ala Trp Gly Lys Gly Leu Thr			
165	170		175
Asp Val Lys Gly Ala Thr Arg Pro Ser Ser Leu Thr Ala Ala Met Ser			
180	185		190
Val Cys His Gly Glu Glu Ala Val Cys Ser Ala Gly Ala Thr Pro Ser			
195	200		205
Met Gly Leu Ala Asn Ile Ser Val Val Arg Pro Val Ala Thr Ala Gly			
210	215		220
Ser Ser Thr Ser Pro Ala Ala Gln Ala Cys Pro Ser			
225	230		235

<210> 538

<211> 390

<212> PRT

<213> Homo sapiens

<400> 538

Met Cys Ile Cys His Leu Pro Cys Arg Pro Val Lys Pro Asn Ile Ile
 1 5 10 15
 Gly Glu Gln Ile Thr Ser Lys Met Gly Ala His Tyr His Cys Ile Ile
 20 25 30
 Cys Ser Ala Thr Ile Thr Arg Arg Thr Asp Met Leu Gly His Val Arg
 35 40 45
 Arg His Met Asn Lys Gly Glu Thr Lys Ser Ser Tyr Ile Ala Ala Ser
 50 55 60
 Thr Ala Lys Pro Pro Lys Glu Ile Leu Lys Glu Ala Asp Thr Asp Val
 65 70 75 80
 Gln Val Cys Pro Asn Tyr Ser Ile Pro Gln Lys Thr Asp Ser Tyr Phe
 85 90 95
 Asn Pro Lys Met Lys Leu Asn Arg Gln Leu Ile Phe Cys Thr Leu Ala
 100 105 110
 Ala Leu Ala Glu Glu Arg Lys Pro Leu Glu Cys Leu Asp Ala Phe Gly
 115 120 125
 Ala Thr Gly Ile Met Gly Leu Gln Trp Ala Lys His Leu Gly Asn Ala
 130 135 140
 Val Lys Val Thr Ile Asn Asp Leu Asn Glu Asn Ser Val Thr Leu Ile
 145 150 155 160
 Gln Glu Ser Cys His Leu Asn Lys Leu Lys Val Val Val Asp Ser Lys
 165 170 175
 Glu Lys Glu Lys Ser Asp Asp Ile Leu Glu Glu Gly Glu Lys Asn Leu
 180 185 190
 Gly Asn Ile Lys Val Thr Lys Met Asp Ala Asn Val Leu Met His Leu
 195 200 205
 Arg Ser Phe Asp Phe Ile His Leu Asp Pro Phe Gly Thr Ser Val Asn
 210 215 220
 Tyr Leu Asp Ser Ala Phe Arg Asn Ile Arg Asn Leu Gly Ile Val Ser

225	230	235	240
Val Thr Ser Thr Asp Ile Ser Ser Leu Tyr Ala Lys Ala Gln His Val			
245	250	255	
Ala Arg Arg His Tyr Gly Cys Asn Ile Val Arg Thr Glu Tyr Tyr Lys			
260	265	270	
Glu Leu Ala Ala Arg Ile Val Val Ala Ala Val Ala Arg Ala Ala Ala			
275	280	285	
Arg Cys Asn Lys Gly Ile Glu Val Leu Phe Ala Val Ala Leu Glu His			
290	295	300	
Phe Val Leu Val Val Val Arg Val Leu Arg Gly Pro Thr Ser Ala Asp			
305	310	315	320
Glu Thr Ala Lys Lys Ile Gln Tyr Leu Ile His Cys Gln Trp Cys Glu			
325	330	335	
Glu Arg Ile Phe Gln Lys Asp Gly Asn Met Val Glu Asp Tyr Ser Ala			
340	345	350	
Asn Phe Val Ile Ser Tyr Thr Gly Phe Pro Phe Val Asn Arg Gln Asp			
355	360	365	
Ile Arg Lys Thr His Ile Asp Ser Cys Leu Val Thr Val Met Glu Ala			
370	375	380	
Cys Leu Glu Arg Gln Gln			
385	390		

<210> 539

<211> 619

<212> PRT

<213> Homo sapiens

<400> 539

Met Ala Arg Leu Gln Arg Arg Ala Ser Gln Arg Arg Gln Gly Gly Thr
 1 5 10 15
 Trp Gly Leu Arg Val Val Gln Glu Pro Gly Gly His Leu Tyr Ile Trp
 20 25 30
 Leu Ala Ser Glu Lys Ala His Glu Arg Gln Arg Ala Val His Ser Cys
 35 40 45
 Met Ile Leu Leu Lys Phe Leu Asn His Asn Gly Tyr Leu Asp Pro Lys
 50 55 60
 Glu Asp Phe Lys Arg Ile Gly Gln Leu Val Gly Ile Leu Gly Met Leu
 65 70 75 80
 Cys Gln Asp Pro Asp Arg Ala Thr Gln Arg Cys Ser Leu Glu Gly Ala
 85 90 95
 Ser His Leu Tyr Gln Leu Leu Met Cys His Lys Arg Glu Ala Leu Gln
 100 105 110
 Ala Glu Ser Gln Ala Pro Lys Glu Leu Ser Gln Ala His Ser Asp Gly
 115 120 125
 Ala Pro Leu Trp Asn Ser Arg Asp Gln Lys Ala Thr Pro Leu Gly Pro
 130 135 140
 Gln Glu Met Ala Lys Asn His Ile Phe Gln Leu Cys Ser Phe Gln Val
 145 150 155 160
 Ile Lys Asp Ile Met Gln Gln Leu Thr Leu Ala Glu Leu Ser Asp Leu
 165 170 175
 Ile Trp Thr Ala Ile Asp Gly Leu Gly Ser Thr Ser Pro Phe Arg Val
 180 185 190
 Gln Ala Ala Ser Glu Met Leu Leu Thr Ala Val Gln Glu His Gly Ala
 195 200 205
 Lys Leu Glu Ile Val Ser Ser Met Ala Gln Ala Ile Arg Leu Arg Leu
 210 215 220
 Cys Ser Val His Ile Pro Gln Ala Lys Glu Lys Thr Leu His Ala Ile

225	230	235	240
Thr Leu Leu Ala Arg Ser His Thr Cys Glu Leu Val Ala Thr Phe Leu			
245	250	255	
Asn Ile Ser Ile Pro Leu Asp Ser His Thr Phe Gln Leu Trp Arg Ala			
260	265	270	
Leu Gly Ala Glu Gln Pro Thr Ser His Leu Val Leu Thr Thr Leu Leu			
275	280	285	
Ala Cys Leu Gln Glu Arg Pro Leu Pro Thr Gly Ala Ser Asp Ser Ser			
290	295	300	
Pro Cys Pro Lys Glu Lys Thr Tyr Leu Arg Leu Leu Ala Ala Met Asn			
305	310	315	320
Met Leu His Glu Leu Gln Phe Ala Arg Glu Phe Lys Gln Ala Val Gln			
325	330	335	
Glu Gly Tyr Pro Lys Leu Phe Leu Ala Leu Leu Thr Gln Met His Tyr			
340	345	350	
Val Leu Glu Leu Asn Leu Pro Ser Glu Pro Gln Pro Lys Gln Gln Ala			
355	360	365	
Gln Glu Ala Ala Val Pro Ser Pro Gln Ser Cys Ser Thr Ser Leu Glu			
370	375	380	
Ala Leu Lys Ser Leu Leu Ser Thr Thr Gly His Trp His Asp Phe Ala			
385	390	395	400
His Leu Glu Leu Gln Gly Ser Trp Glu Leu Phe Thr Thr Ile His Thr			
405	410	415	
Tyr Pro Lys Gly Val Gly Leu Leu Ala Arg Ala Met Val Gln Asn His			
420	425	430	
Cys Arg Gln Ile Pro Ala Val Leu Arg Gln Leu Leu Pro Ser Leu Gln			
435	440	445	
Ser Pro Gln Glu Arg Glu Arg Lys Val Ala Ile Leu Ile Leu Thr Lys			
450	455	460	

Phe Leu Tyr Ser Pro Val Leu Leu Glu Val Leu Pro Lys Gln Ala Ala
 465 470 475 480
 Leu Thr Val Leu Ala Gln Gly Leu His Asp Pro Ser Pro Glu Val Arg
 485 490 495
 Val Leu Ser Leu Gln Gly Leu Ser Asn Ile Leu Phe His Pro Asp Lys
 500 505 510
 Glu Arg Asp Gly Ile Arg Ala Ala Met Ala Leu Phe Gly Asp Leu
 515 520 525
 Val Ala Ala Met Ala Asp Arg Glu Leu Ser Gly Leu Arg Thr Gln Val
 530 535 540
 His Gln Ser Met Val Pro Leu Leu His Leu Lys Asp Gln Cys Pro
 545 550 555 560
 Ala Val Ala Thr Gln Ala Lys Phe Thr Phe Tyr Arg Cys Ala Val Leu
 565 570 575
 Leu Arg Trp Arg Leu Leu His Thr Leu Phe Cys Thr Leu Ala Trp Glu
 580 585 590
 Arg Gly Leu Ser Ala Arg His Phe Leu Trp Thr Cys Leu Ala Thr Pro
 595 600 605
 Ser Ala Thr Thr Pro Arg Pro Cys Ser Arg Cys
 610 615

<210> 540

<211> 1103

<212> PRT

<213> Homo sapiens

<400> 540

Met His Phe Leu Ala Ala Gln Asn Gln Phe Leu His Ser Pro Phe Leu

1	5	10	15
Glu Arg Pro Met Asp Met Pro Tyr Met Ile Phe Asp Pro Asn Asn Pro			
20	25	30	
Leu Met Thr Gly Gln Leu Leu Gly Ser Ser Leu Thr Gln Met Pro Pro			
35	40	45	
Gln Ala Ser Ser Ser His Thr Thr Ala Pro Thr Thr Val Ala Ala Ser			
50	55	60	
Leu Lys Arg Lys Leu Asp Asp Lys Glu Asp Asn Asn Cys Ser Glu Lys			
65	70	75	80
Glu Gly Gly Asn Ser Gly Glu Asp Gln His Arg Asp Lys Arg Leu Arg			
85	90	95	
Thr Thr Ile Thr Pro Glu Gln Leu Glu Ile Leu Tyr Glu Lys Tyr Leu			
100	105	110	
Leu Asp Ser Asn Pro Thr Arg Lys Met Leu Asp His Ile Ala Arg Glu			
115	120	125	
Val Gly Leu Lys Lys Arg Val Val Gln Val Trp Phe Gln Asn Thr Arg			
130	135	140	
Ala Arg Glu Arg Lys Gly Gln Phe Arg Ala Val Gly Pro Ala Gln Ser			
145	150	155	160
His Lys Arg Cys Pro Phe Cys Arg Ala Leu Phe Lys Ala Lys Ser Ala			
165	170	175	
Leu Glu Ser His Ile Arg Ser Arg His Trp Asn Glu Gly Lys Gln Ala			
180	185	190	
Gly Tyr Ser Leu Pro Pro Ser Pro Leu Ile Ser Thr Glu Asp Gly Gly			
195	200	205	
Glu Ser Pro Gln Lys Tyr Ile Tyr Phe Asp Tyr Pro Ser Leu Pro Leu			
210	215	220	
Thr Lys Ile Asp Leu Ser Ser Glu Asn Glu Leu Ala Ser Thr Val Ser			
225	230	235	240

Thr Pro Val Ser Lys Thr Ala Glu Leu Ser Pro Lys Asn Leu Leu Ser
 245 250 255
 Pro Ser Ser Phe Lys Ala Glu Cys Ser Glu Asp Val Glu Asn Leu Asn
 260 265 270
 Ala Pro Pro Ala Glu Ala Gly Tyr Asp Gln Asn Lys Thr Asp Phe Asp
 275 280 285
 Glu Thr Ser Ser Ile Asn Thr Ala Ile Ser Asp Ala Thr Thr Gly Asp
 290 295 300
 Glu Gly Asn Thr Glu Met Glu Ser Thr Thr Gly Ser Ser Gly Asp Val
 305 310 315 320
 Lys Pro Ala Leu Ser Pro Lys Glu Pro Lys Thr Leu Asp Thr Leu Pro
 325 330 335
 Lys Pro Ala Thr Thr Pro Thr Thr Glu Val Cys Asp Asp Lys Phe Leu
 340 345 350
 Phe Ser Leu Thr Ser Pro Ser Ile His Phe Asn Asp Lys Asp Gly Asp
 355 360 365
 His Asp Gln Ser Phe Tyr Ile Thr Asp Asp Pro Asp Asn Ala Asp
 370 375 380
 Arg Ser Glu Thr Ser Ser Ile Ala Asp Pro Ser Ser Pro Asn Pro Phe
 385 390 395 400
 Gly Ser Ser Asn Pro Phe Lys Ser Lys Ser Asn Asp Arg Pro Gly His
 405 410 415
 Lys Arg Phe Arg Thr Gln Met Ser Asn Leu Gln Leu Lys Val Leu Lys
 420 425 430
 Ala Cys Phe Ser Asp Tyr Arg Thr Pro Thr Met Gln Glu Cys Glu Met
 435 440 445
 Leu Gly Asn Glu Ile Gly Leu Pro Lys Arg Val Val Gln Val Trp Phe
 450 455 460
 Gln Asn Ala Arg Ala Lys Glu Lys Lys Phe Lys Ile Asn Ile Gly Lys

465	470	475	480
Pro Phe Met Ile Asn Gln Gly Gly Thr Glu Gly Thr Lys Pro Glu Cys			
485	490	495	
Thr Leu Cys Gly Val Lys Tyr Ser Ala Arg Leu Ser Ile Arg Asp His			
500	505	510	
Ile Phe Ser Lys Gln His Ile Ser Lys Val Arg Glu Thr Val Gly Ser			
515	520	525	
Gln Leu Asp Arg Glu Lys Asp Tyr Leu Ala Pro Thr Thr Val Arg Gln			
530	535	540	
Leu Met Ala Gln Gln Glu Leu Asp Arg Ile Lys Lys Ala Ser Asp Val			
545	550	555	560
Leu Gly Leu Thr Val Gln Gln Pro Gly Met Met Asp Ser Ser Ser Leu			
565	570	575	
His Gly Ile Ser Leu Pro Thr Ala Tyr Pro Gly Leu Pro Gly Leu Pro			
580	585	590	
Pro Val Leu Leu Pro Gly Met Asn Gln Gly Pro Ser Ser Leu Pro Gly Phe			
595	600	605	
Pro Gln Asn Ser Asn Thr Leu Thr Pro Pro Gly Ala Gly Met Leu Gly			
610	615	620	
Phe Pro Thr Ser Ala Thr Ser Ser Pro Ala Leu Ser Leu Ser Ser Ala			
625	630	635	640
Pro Thr Lys Pro Leu Leu Gln Thr Pro Pro Pro Pro Pro Pro Pro			
645	650	655	
Pro Pro Pro Pro Ser Ser Leu Ser Gly Gln Gln Thr Glu Gln Gln			
660	665	670	
Asn Lys Glu Ser Glu Lys Lys Gln Thr Lys Pro Asn Lys Val Lys Lys			
675	680	685	
Ile Lys Glu Glu Glu Leu Glu Ala Thr Lys Pro Glu Lys His Pro Lys			
690	695	700	

Lys Glu Glu Lys Ile Ser Ser Ala Leu Ser Val Leu Gly Lys Val Val
 705 710 715 720
 Gly Glu Thr His Val Asp Pro Ile Gln Leu Gln Ala Leu Gln Asn Ala
 725 730 735
 Ile Ala Gly Asp Pro Ala Ser Phe Ile Gly Gly Gln Phe Leu Pro Tyr
 740 745 750
 Phe Ile Pro Gly Phe Ala Ser Tyr Phe Thr Pro Gln Leu Pro Gly Thr
 755 760 765
 Val Gln Gly Gly Tyr Phe Pro Pro Val Cys Gly Met Glu Ser Leu Phe
 770 775 780
 Pro Tyr Gly Pro Thr Met Pro Gln Thr Leu Ala Gly Leu Ser Pro Gly
 785 790 795 800
 Ala Leu Leu Gln Gln Tyr Gln Gln Tyr Gln Gln Asn Leu Gln Glu Ser
 805 810 815
 Leu Gln Lys Gln Gln Lys Gln Gln Gln Glu Gln Gln Lys Pro Ala
 820 825 830
 Gln Ala Lys Thr Ser Lys Val Glu Ser Asp Gln Pro Gln Asn Ser Asn
 835 840 845
 Asp Ala Ser Glu Thr Lys Glu Asp Lys Ser Thr Ala Thr Glu Ser Thr
 850 855 860
 Lys Glu Glu Pro Gln Leu Glu Ser Lys Ser Ala Asp Phe Ser Asp Thr
 865 870 875 880
 Tyr Val Val Pro Phe Val Lys Tyr Glu Phe Ile Cys Arg Lys Cys Gln
 885 890 895
 Met Met Phe Thr Asp Glu Asp Ala Ala Val Asn His Gln Lys Ser Phe
 900 905 910
 Cys Tyr Phe Gly Gln Pro Leu Ile Asp Pro Gln Glu Thr Val Leu Arg
 915 920 925
 Val Pro Val Ser Lys Tyr Gln Cys Leu Ala Cys Asp Val Ala Ile Ser

930	935	940
Gly Asn Glu Ala Leu Ser Gln His Leu Gln Ser Ser Leu His Lys Glu		
945	950	955
Lys Thr Ile Lys Gln Ala Met Arg Asn Ala Lys Glu His Val Arg Leu		
965	970	975
Leu Pro His Ser Val Cys Ser Pro Asn Pro Asn Thr Thr Ser Thr Ser		
980	985	990
Gln Ser Ala Ala Ser Ser Asn Asn Thr Tyr Pro His Leu Ser Cys Phe		
995	1000	1005
Ser Met Lys Ser Trp Pro Asn Ile Leu Phe Gln Ala Ser Ala Arg Arg		
1010	1015	1020
Ala Ala Ser Pro Pro Ser Ser Pro Pro Ser Leu Ser Leu Pro Ser Thr		
1025	1030	1035
Val Thr Ser Ser Leu Cys Ser Thr Ser Gly Val Gln Thr Ser Leu Pro		
1045	1050	1055
Thr Glu Ser Cys Ser Asp Glu Ser Asp Ser Glu Leu Ser Gln Lys Leu		
1060	1065	1070
Glu Asp Leu Asp Asn Ser Leu Glu Val Lys Ala Lys Pro Ala Ser Gly		
1075	1080	1085
Leu Asp Gly Asn Phe Asn Ser Ile Arg Met Asp Met Phe Ser Val		
1090	1095	1100

<210> 541

<211> 727

<212> PRT

<213> Homo sapiens

<400> 541

Met Gln Gln Lys Thr Lys Leu Phe Pro Gln Ala Leu Lys Tyr Ser Ile
 1 5 10 15
 Pro His Leu Gly Lys Cys Met Gln Lys Gln His Leu Asn His Tyr Asn
 20 25 30
 Phe Ala Asp His Cys Tyr Asn Arg Ile Lys Leu Lys Lys Tyr His Leu
 35 40 45
 Thr Lys Cys Leu Gln Asn Lys Pro Lys Ile Ser Glu Leu Ala Arg Asn
 50 55 60
 Ile Pro Ser Arg Ser Phe Ser Cys Lys Asp Leu Gln Pro Val Lys Gln
 65 70 75 80
 Glu Asn Glu Lys Pro Leu Pro Glu Asn Thr Asp Ala Phe Glu Lys Val
 85 90 95
 Arg Thr Lys Leu Glu Thr Gln Pro Gln Glu Glu Tyr Glu Ile Ile Asn
 100 105 110
 Val Glu Val Lys His Gly Gly Phe Val Tyr Tyr Gln Glu Gly Cys Cys
 115 120 125
 Leu Val Arg Ser Lys Asp Glu Glu Ala Asp Asn Asn Tyr Glu Val
 130 135 140
 Leu Phe Asn Leu Glu Glu Leu Lys Leu Asp Gln Pro Phe Ile Asp Cys
 145 150 155 160
 Ile Arg Val Ala Pro Asp Glu Lys Tyr Val Ala Ala Lys Ile Arg Thr
 165 170 175
 Glu Asp Ser Glu Ala Ser Thr Cys Val Ile Ile Lys Leu Ser Asp Gln
 180 185 190
 Pro Val Met Glu Ala Ser Phe Pro Asn Val Ser Ser Phe Glu Trp Val
 195 200 205
 Lys Asp Glu Glu Asp Glu Asp Val Leu Phe Tyr Thr Phe Gln Arg Asn
 210 215 220
 Leu Arg Cys His Asp Val Tyr Arg Ala Thr Phe Gly Asp Asn Lys Arg

225	230	235	240
Asn Glu Arg Phe Tyr Thr Glu Lys Asp Pro Ser Tyr Phe Val Phe Leu			
245	250	255	
Tyr Leu Thr Lys Asp Ser Arg Phe Leu Thr Ile Asn Ile Met Asn Lys			
260	265	270	
Thr Thr Ser Glu Val Trp Leu Ile Asp Gly Leu Ser Pro Trp Asp Pro			
275	280	285	
Pro Val Leu Ile Gln Lys Arg Ile His Gly Ile Leu Tyr Tyr Val Glu			
290	295	300	
His Arg Asp Asp Glu Leu Tyr Ile Leu Thr Asn Val Gly Glu Pro Thr			
305	310	315	320
Glu Phe Lys Leu Met Arg Thr Ala Ala Asp Thr Pro Ala Ile Met Asn			
325	330	335	
Trp Asp Leu Phe Phe Thr Met Lys Arg Asn Thr Lys Val Ile Asp Leu			
340	345	350	
Asp Met Phe Lys Asp His Cys Val Leu Phe Leu Lys His Ser Asn Leu			
355	360	365	
Leu Tyr Val Asn Val Ile Gly Leu Ala Asp Asp Ser Val Arg Ser Leu			
370	375	380	
Lys Leu Pro Pro Trp Ala Cys Gly Phe Ile Met Asp Thr Asn Ser Asp			
385	390	395	400
Pro Lys Asn Cys Pro Phe Gln Leu Cys Ser Pro Ile Arg Pro Pro Lys			
405	410	415	
Tyr Tyr Thr Tyr Lys Phe Ala Glu Gly Lys Leu Phe Glu Glu Thr Gly			
420	425	430	
His Glu Asp Pro Ile Thr Lys Thr Ser Arg Val Leu Arg Leu Glu Ala			
435	440	445	
Lys Ser Lys Asp Gly Lys Leu Val Pro Met Thr Val Phe His Lys Thr			
450	455	460	

Asp Ser Glu Asp Leu Gln Lys Lys Pro Leu Leu Val His Val Tyr Gly
 465 470 475 480
 Ala Tyr Gly Met Asp Leu Lys Met Asn Phe Arg Pro Glu Arg Arg Val
 485 490 495
 Leu Val Asp Asp Gly Trp Ile Leu Ala Tyr Cys His Val Arg Gly Gly
 500 505 510
 Gly Glu Leu Gly Leu Gln Trp His Ala Asp Gly Arg Leu Thr Lys Lys
 515 520 525
 Leu Asn Gly Leu Ala Asp Leu Glu Ala Cys Ile Lys Thr Leu His Gly
 530 535 540
 Gln Gly Phe Ser Gln Pro Ser Leu Thr Thr Leu Thr Ala Phe Ser Ala
 545 550 555 560
 Gly Gly Val Leu Ala Gly Ala Leu Cys Asn Ser Asn Pro Glu Leu Val
 565 570 575
 Arg Ala Val Thr Leu Glu Ala Pro Phe Leu Asp Val Leu Asn Thr Met
 580 585 590
 Met Asp Thr Thr Leu Pro Leu Thr Leu Glu Leu Glu Glu Trp Gly
 595 600 605
 Asn Pro Ser Ser Asp Glu Lys His Lys Asn Tyr Ile Lys Arg Tyr Cys
 610 615 620
 Pro Tyr Gln Asn Ile Lys Pro Gln His Tyr Pro Ser Ile His Ile Thr
 625 630 635 640
 Ala Tyr Glu Asn Asp Glu Arg Val Pro Leu Lys Gly Ile Val Ser Tyr
 645 650 655
 Thr Glu Lys Leu Lys Glu Ala Ile Ala Glu His Ala Lys Asp Thr Gly
 660 665 670
 Glu Gly Tyr Gln Thr Pro Asn Ile Ile Leu Asp Ile Gln Pro Gly Gly
 675 680 685
 Asn His Val Ile Glu Asp Ser His Lys Lys Ile Thr Ala Gln Ile Lys

690	695	700	
Phe Leu Tyr Glu Glu Leu Gly Leu Asp Ser Thr Ser Val Phe Glu Asp			
705	710	715	720
Leu Lys Lys Tyr Leu Lys Phe			
	725		

<210> 542

<211> 378

<212> PRT

<213> Homo sapiens

<400> 542

Met Glu Asp Arg Asp Glu Ser Glu Val Ser Asp Glu Gly Gly Ser Pro

1	5	10	15
---	---	----	----

Ile Ser Ser Glu Gly Gln Glu Pro Arg Ala Asp Pro Glu Pro Pro Gly

20	25	30
----	----	----

Leu Ala Ala Gly Leu Val Gln Gln Asp Leu Val Phe Glu Val Glu Thr

35	40	45
----	----	----

Pro Ala Val Leu Pro Glu Pro Val Pro Gln Glu Asp Gly Val Asp Leu

50	55	60
----	----	----

Leu Gly Leu His Ser Glu Val Gly Ala Gly Pro Ala Val Pro Pro Gln

65	70	75	80
----	----	----	----

Ala Cys Lys Ala Pro Ser Ser Asn Thr Asp Leu Leu Ser Cys Leu Leu

85	90	95
----	----	----

Gly Pro Pro Glu Ala Ala Ser Gln Gly Pro Pro Glu Asp Leu Leu Ser

100	105	110
-----	-----	-----

Glu Asp Pro Leu Leu Ala Ser Pro Ala Pro Pro Leu Ser Val Gln

115	120	125
-----	-----	-----

Ser Thr Pro Arg Gly Gly Pro Pro Ala Ala Ala Asp Pro Phe Gly Pro
 130 135 140
 Leu Leu Pro Ser Ser Gly Asn Asn Ser Gln Pro Cys Ser Asn Pro Asp
 145 150 155 160
 Leu Phe Gly Glu Phe Leu Asn Ser Asp Ser Val Thr Val Pro Pro Ser
 165 170 175
 Phe Pro Ser Ala His Ser Ala Pro Pro Pro Ser Cys Ser Ala Asp Phe
 180 185 190
 Leu His Leu Gly Asp Leu Pro Gly Glu Pro Ser Lys Met Thr Ala Ser
 195 200 205
 Ser Ser Asn Pro Asp Leu Leu Gly Gly Trp Ala Ala Trp Thr Glu Thr
 210 215 220
 Ala Ala Ser Ala Val Ala Pro Thr Pro Ala Thr Glu Gly Ser Pro Ala
 225 230 235 240
 Gly Phe Pro Pro Gly Gly Phe Ile Pro Lys Thr Ala Thr Thr Pro Lys
 245 250 255
 Gly Ser Ser Ser Trp Gln Thr Ser Arg Pro Pro Ala Gln Gly Ala Ser
 260 265 270
 Trp Pro Pro Gln Ala Lys Pro Pro Pro Lys Ala Cys Thr Gln Pro Arg
 275 280 285
 Pro Asn Tyr Ala Ser Asn Phe Ser Val Ile Gly Ala Arg Glu Glu Arg
 290 295 300
 Gly Val Arg Ala Pro Ser Phe Gly Glu Ser Pro Thr Leu Cys Cys Cys
 305 310 315 320
 Gly Val Cys Arg Asp Leu Pro Glu Leu Ala Lys Gly Arg Thr Tyr Val
 325 330 335
 Val Phe Phe Ile Ser Glu Pro Ser Pro Gly Thr Gly Thr Ala Lys Pro
 340 345 350
 Leu Arg Glu Arg Arg Gly Phe Arg Cys Val Phe Thr Gly Leu Ser Leu

355	360	365
-----	-----	-----

Gly Gln Ala Ser Gly Ser Leu Leu Phe Gln

370	375	
-----	-----	--

<210> 543

<211> 168

<212> PRT

<213> Homo sapiens

<400> 543

Met Glu Glu Ile Arg Phe Pro Arg Thr Leu Gly Pro Glu Ala Lys Ser

1	5	10	15
---	---	----	----

Leu Leu Ser Gly Leu Leu Lys Lys Asp Pro Lys Gln Arg Leu Gly Gly

20	25	30	
----	----	----	--

Gly Ser Glu Asp Ala Lys Glu Ile Met Gln His Arg Phe Phe Ala Gly

35	40	45	
----	----	----	--

Ile Val Trp Gln His Val Tyr Glu Lys Lys Val Arg Leu Leu Pro Ala

50	55	60	
----	----	----	--

Tyr Ser Arg Ala Arg Met Leu Pro Thr Tyr Pro His Ser Arg Met His

65	70	75	80
----	----	----	----

Val Ala Arg Ser Pro Asp Phe Pro His Thr Arg Pro His Leu Arg Ser

85	90	95	
----	----	----	--

Leu Leu Gln Ser Trp Tyr Lys Glu Gly Leu Ala Ala Pro Thr Ser Ala

100	105	110	
-----	-----	-----	--

Pro Gly Ala Gln Arg Leu Trp His Cys Arg Val Pro Pro Gly Asn Trp

115	120	125	
-----	-----	-----	--

Pro Gly Pro His Phe Leu Leu Pro Ser Glu Val Cys His Thr Leu Ser

130	135	140	
-----	-----	-----	--

Phe Leu Leu Pro Ser Glu Val Cys His Thr Leu Ser Ala Ser Leu Gly
 145 150 155 160
 Val Pro Phe Pro Asp Ala Val Gln
 165

<210> 544

<211> 219

<212> PRT

<213> Homo sapiens

<400> 544

Met Val Gly Gly Arg Ser Cys Pro Leu Arg Gln Val Trp Val Gly Asn
 1 5 10 15

Lys Ser Gly Leu Leu Val Gly Ala Glu Ala Gly Gly Ser Ala Ala Asp
 20 25 30

Gly Val Thr Pro Pro Gln Glu Cys Ile Leu Ser Gly Ile Met Ser Val
 35 40 45

Asn Gly Lys Lys Val Leu His Met Asp Arg Asn Pro Tyr Tyr Gly Gly
 50 55 60

Glu Ser Ser Ser Ile Thr Pro Leu Glu Glu Leu Tyr Lys Arg Phe Gln
 65 70 75 80

Leu Leu Glu Gly Pro Pro Glu Ser Met Gly Arg Gly Arg Asp Trp Asn
 85 90 95

Val Asp Leu Ile Pro Lys Phe Leu Met Ala Asn Gly Gln Leu Val Lys
 100 105 110

Met Leu Leu Tyr Thr Glu Val Thr Arg Tyr Leu Asp Phe Lys Val Val
 115 120 125

Glu Gly Ser Phe Val Tyr Lys Gly Gly Lys Ile Tyr Arg Val Pro Ser

130	135	140	
Thr Glu Thr Glu Ala Leu Ala Ser Asn Leu Met Gly Met Phe Glu Lys			
145	150	155	160
Arg Arg Phe Arg Lys Phe Leu Val Phe Val Ala Asn Phe Asp Glu Asn			
165	170	175	
Asp Pro Lys Thr Phe Glu Gly Val Asp Pro Gln Thr Thr Ser Met Arg			
180	185	190	
Asp Val Tyr Arg Lys Phe Asp Leu Gly Gln Asp Val Ile Asp Phe Thr			
195	200	205	
Gly His Ala Leu Ala Leu Tyr Arg Thr Asp Glu			
210	215		

<210> 545

<211> 419

<212> PRT

<213> Homo sapiens

<400> 545

Met Leu Arg Cys Phe His Ser Lys Gly Val Asn Tyr Ile Asn Phe Ser			
1	5	10	15
Ala Thr Gly Lys Leu Leu Val Ser Val Gly Val Asp Pro Glu His Thr			
20	25	30	
Ile Thr Val Trp Arg Trp Gln Glu Gly Ala Lys Val Ala Ser Arg Gly			
35	40	45	
Gly His Leu Glu Arg Ile Phe Val Val Glu Phe Arg Pro Asp Ser Asp			
50	55	60	
Thr Gln Phe Val Ser Val Gly Val Lys His Met Lys Phe Trp Thr Leu			
65	70	75	80

Ala Gly Ser Ala Leu Leu Tyr Lys Lys Gly Val Ile Gly Ser Leu Gly
 85 90 95
 Ala Ala Lys Met Gln Thr Met Leu Ser Val Ala Phe Gly Ala Asn Asn
 100 105 110
 Leu Thr Phe Thr Gly Ala Ile Asn Gly Asp Val Tyr Val Trp Lys Asp
 115 120 125
 His Phe Leu Ile Arg Leu Val Ala Lys Ala His Thr Gly Pro Val Phe
 130 135 140
 Thr Met Tyr Thr Thr Leu Arg Asp Gly Leu Ile Val Thr Gly Gly Lys
 145 150 155 160
 Glu Arg Pro Thr Lys Glu Gly Gly Ala Val Lys Leu Trp Asp Gln Glu
 165 170 175
 Met Lys Arg Cys Arg Ala Phe Gln Leu Glu Thr Gly Gln Leu Val Glu
 180 185 190
 Cys Val Arg Ser Val Cys Arg Gly Lys Gly Lys Ile Leu Val Gly Thr
 195 200 205
 Lys Asp Gly Glu Ile Ile Glu Val Gly Glu Lys Asn Ala Ala Ser Asn
 210 215 220
 Ile Leu Ile Asp Gly His Met Glu Gly Glu Ile Trp Gly Leu Ala Thr
 225 230 235 240
 His Pro Ser Lys Asp Leu Phe Ile Ser Ala Ser Asn Asp Gly Thr Ala
 245 250 255
 Arg Ile Trp Asp Leu Ala Asp Lys Lys Leu Leu Asn Lys Val Ser Leu
 260 265 270
 Gly His Ala Ala Arg Cys Ala Ala Tyr Ser Pro Asp Gly Glu Met Val
 275 280 285
 Ala Ile Gly Met Lys Asn Gly Glu Phe Val Ile Leu Leu Val Asn Ser
 290 295 300
 Leu Lys Val Trp Gly Lys Lys Arg Asp Arg Lys Ser Ala Ile Gln Asp

305	310	315	320
Ile Arg Ile Ser Pro Asp Asn Arg Phe Leu Ala Val Gly Ser Ser Glu			
325	330	335	
His Thr Val Asp Phe Tyr Asp Leu Thr Gln Gly Thr Asn Leu Asn Arg			
340	345	350	
Ile Gly Tyr Cys Lys Asp Ile Pro Ser Phe Val Ile Gln Met Asp Phe			
355	360	365	
Ser Ala Asp Gly Glu Tyr Ile Gln Met Gln Leu Thr Leu Leu Val Gly			
370	375	380	
Asn His Thr Gln Arg Thr Ala Ile Leu Gly Leu Trp Lys Ile Ala Arg			
385	390	395	400
Lys Trp Met Arg Arg Lys Met Gly Lys Trp Pro Ala Val Val Val Met			
405	410	415	
Gly Trp Pro			

<210> 546

<211> 699

<212> PRT

<213> Homo sapiens

<400> 546

1	5	10	15
Met Asn Thr Phe Gln Ala Ser Val Ser Phe Gln Asp Val Thr Val Glu			
20	25	30	
Phe Ser Gln Glu Glu Trp Gln His Met Gly Pro Val Glu Arg Thr Leu			
35	40	45	
Tyr Arg Asp Val Met Leu Glu Asn Tyr Ser His Leu Val Ser Val Gly			

Tyr Cys Phe Thr Lys Pro Glu Leu Ile Phe Thr Leu Glu Gln Gly Glu
 50 55 60
 Asp Pro Trp Leu Leu Glu Lys Glu Lys Gly Phe Leu Ser Arg Asn Ser
 65 70 75 80
 Pro Glu Asp Ser Gln Pro Asp Glu Ile Ser Glu Lys Ser Pro Glu Asn
 85 90 95
 Gln Gly Lys His Leu Leu Gln Val Leu Phe Thr Asn Lys Leu Leu Thr
 100 105 110
 Thr Glu Gln Glu Ile Ser Gly Lys Pro His Asn Arg Asp Ile Asn Ile
 115 120 125
 Phe Arg Ala Arg Met Met Pro Cys Lys Cys Asp Ile Ala Gly Ser Ala
 130 135 140
 Cys Gln Gly Leu Ser Leu Met Ala Pro His Cys Gln Tyr Ser Lys Glu
 145 150 155 160
 Lys Ala His Glu Arg Asn Val Cys Asp Lys Trp Leu Ile Ser Ile Lys
 165 170 175
 Asp Gly Arg Thr Asn Thr Gln Glu Lys Ser Phe Ala Tyr Ser Lys Ile
 180 185 190
 Val Lys Thr Leu His His Lys Glu Glu Val Ile Gln His Gln Thr Ile
 195 200 205
 Gln Thr Leu Gly Gln Asp Phe Glu Tyr Asn Glu Ser Arg Lys Ala Phe
 210 215 220
 Leu Glu Lys Ala Ala Leu Val Thr Ser Asn Ser Thr His Pro Lys Gly
 225 230 235 240
 Lys Ser Tyr Asn Phe Asn Lys Phe Gly Glu Asn Lys Tyr Asp Lys Ser
 245 250 255
 Thr Phe Ile Ile Pro Gln Asn Met Asn Pro Glu Lys Ser His Tyr Glu
 260 265 270
 Phe Asn Asp Thr Gly Asn Cys Phe Cys Arg Ile Thr His Lys Thr Leu

275	280	285
Thr Gly Gly Lys Ser Phe Ser Gln Lys Ser His Ile Arg Glu His His		
290	295	300
Arg Val His Ile Gly Val Lys Pro Phe Glu Tyr Gly Lys Ser Phe Asn		
305	310	315
Arg Asn Ser Thr Leu Pro Val His Gln Arg Thr His Ala Thr Asp Lys		
325	330	335
Tyr Ser Asp Tyr His Pro Cys Thr Glu Thr Phe Ser Tyr Gln Ser Thr		
340	345	350
Phe Ser Val His Gln Lys Val His Ile Arg Ala Lys Pro Tyr Glu Tyr		
355	360	365
Asn Glu Cys Gly Lys Ser Cys Ser Met Asn Ser His Leu Ile Trp Pro		
370	375	380
Gln Lys Ser His Thr Gly Glu Lys Pro Tyr Glu Cys Pro Glu Cys Gly		
385	390	395
Lys Ala Phe Ser Glu Lys Ser Arg Leu Arg Lys His Gln Arg Thr His		
405	410	415
Thr Gly Glu Lys Pro Tyr Lys Cys Asp Gly Cys Asp Lys Ala Phe Ser		
420	425	430
Ala Lys Ser Gly Leu Arg Ile His Gln Arg Thr His Thr Gly Glu Lys		
435	440	445
Pro Phe Glu Cys His Glu Cys Gly Lys Ser Phe Asn Tyr Lys Ser Ile		
450	455	460
Leu Ile Val His Gln Arg Thr His Thr Gly Glu Lys Pro Phe Glu Cys		
465	470	475
Asn Glu Cys Gly Lys Ser Phe Ser His Met Ser Gly Leu Arg Asn His		
485	490	495
Arg Arg Thr His Thr Gly Glu Arg Pro Tyr Lys Cys Asp Glu Cys Gly		
500	505	510

Lys Ala Phe Lys Leu Lys Ser Gly Leu Arg Lys His His Arg Thr His
 515 520 525
 Thr Gly Glu Lys Pro Tyr Lys Cys Asn Gln Cys Gly Lys Ala Phe Gly
 530 535 540
 Gln Lys Ser Gln Leu Arg Gly His His Arg Ile His Thr Gly Glu Lys
 545 550 555 560
 Pro Tyr Lys Cys Asn His Cys Gly Glu Ala Phe Ser Gln Lys Ser Asn
 565 570 575
 Leu Arg Val His His Arg Thr His Thr Gly Glu Lys Pro Tyr Gln Cys
 580 585 590
 Glu Glu Cys Gly Lys Thr Phe Arg Gln Lys Ser Asn Leu Arg Gly His
 595 600 605
 Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Asn Glu Cys Gly
 610 615 620
 Lys Ala Phe Ser Glu Lys Ser Val Leu Arg Lys His Gln Arg Thr His
 625 630 635 640
 Thr Gly Glu Lys Pro Tyr Asn Cys Asn Gln Cys Gly Glu Ala Phe Ser
 645 650 655
 Gln Lys Ser Asn Leu Arg Val His Gln Arg Thr His Thr Gly Glu Lys
 660 665 670
 Pro Tyr Lys Cys Asp Lys Cys Gly Arg Thr Phe Ser Gln Lys Ser Ser
 675 680 685
 Leu Arg Glu His Gln Lys Ala His Pro Gly Asp
 690 695

<210> 547

<211> 319

<212> PRT

<213> Homo sapiens

<400> 547

Met Glu Tyr Pro Ala Pro Ala Thr Val Gln Ala Ala Asp Gly Gly Ala
 1 5 10 15

Ala Gly Pro Tyr Ser Ser Ser Glu Leu Leu Glu Gly Gln Glu Pro Asp
 20 25 30

Gly Val Arg Phe Asp Arg Glu Arg Ala Arg Arg Leu Trp Glu Ala Val
 35 40 45

Ser Gly Ala Gln Pro Val Gly Arg Glu Glu Ala Gln Phe Phe Pro His
 50 55 60

Ser Arg Thr Val Ile Pro Ile Leu Val Leu Ser Glu Thr Tyr Ser Leu
 65 70 75 80

Cys His Pro Val Glu His Met Ile Gln Lys Asn Gln Cys Leu Phe Thr
 85 90 95

Asn Thr Gln Cys Lys Val Cys Cys Ala Leu Leu Ile Ser Glu Ser Gln
 100 105 110

Lys Leu Ala His Tyr Gln Ser Lys Lys His Ala Asn Lys Val Lys Arg
 115 120 125

Tyr Leu Ala Ile His Gly Met Glu Thr Leu Lys Gly Glu Thr Lys Lys
 130 135 140

Leu Asp Ser Asp Gln Lys Ser Ser Arg Ser Lys Asp Lys Asn Gln Cys
 145 150 155 160

Cys Pro Ile Cys Asn Met Thr Phe Ser Ser Pro Val Val Ala Gln Ser
 165 170 175

His Tyr Leu Gly Lys Thr His Ala Lys Asn Leu Lys Leu Lys Gln Gln
 180 185 190

Ser Thr Lys Val Glu Ala Leu His Gln Asn Arg Glu Met Ile Asp Pro
 195 200 205

Asp Lys Phe Cys Ser Leu Cys His Ala Thr Phe Asn Asp Pro Val Met
 210 215 220
 Ala Gln Gln His Tyr Val Gly Lys Lys His Arg Lys Gln Glu Thr Lys
 225 230 235 240
 Leu Lys Leu Met Ala Arg Tyr Gly Arg Leu Ala Asp Pro Ala Val Thr
 245 250 255
 Asp Phe Pro Ala Gly Lys Gly Tyr Pro Cys Lys Thr Cys Lys Ile Val
 260 265 270
 Leu Asn Ser Ile Glu Gln Tyr Gln Ala His Val Ser Gly Phe Lys His
 275 280 285
 Lys Asn Gln Ser Pro Lys Thr Val Ala Ser Ser Leu Gly Gln Ile Pro
 290 295 300
 Met Gln Arg Gln Pro Ile Gln Lys Asp Ser Thr Thr Leu Glu Asp
 305 310 315

<210> 548

<211> 458

<212> PRT

<213> Homo sapiens

<400> 548

Met Glu Ser Asn Phe Asn Thr Glu Ser Ser Ser Thr Phe Thr Leu Gln
 1 5 10 15
 Ser Ser Ser Glu Thr Leu Phe Ser Ile Gln Leu Leu Asp Phe Lys Thr
 20 25 30
 Ser Leu Leu Glu Ala Leu Glu Leu Arg Met Arg Arg Glu Ala Glu
 35 40 45
 Ile His Tyr Glu Glu Gln Ile Gly Lys Ile Ile Val Glu Thr Gln Glu

50	55	60
Leu Lys Trp Gln Lys Glu Thr Leu Gln Asn Gln Lys Glu Thr Leu Ala		
65	70	75
Glu Gln His Lys Glu Ala Met Ala Val Phe Lys Lys Gln Leu Gln Met		
85	90	95
Lys Met Cys Ala Leu Glu Glu Lys Gly Lys Tyr Gln Leu Ala Thr		
100	105	110
Glu Ile Lys Glu Lys Glu Ile Glu Gly Leu Lys Glu Thr Leu Lys Ala		
115	120	125
Leu Gln Val Ser Lys Tyr Ser Leu Gln Lys Lys Val Ser Glu Met Glu		
130	135	140
Gln Lys Val Gln Leu His Leu Leu Ala Lys Glu Asp Tyr His Lys Gln		
145	150	155
Leu Ser Glu Ile Glu Lys Tyr Tyr Ala Thr Ile Thr Gly Gln Phe Gly		
165	170	175
Leu Val Lys Glu Asn His Glu Lys Leu Glu Gln Asn Val Arg Glu Ala		
180	185	190
Ile Gln Ser Asn Lys Arg Leu Ser Ala Leu Asn Lys Lys Gln Glu Ala		
195	200	205
Glu Ile Cys Ser Leu Lys Lys Glu Leu Lys Lys Ala Ala Ser Asp Leu		
210	215	220
Ile Lys Ser Lys Val Thr Cys Gln Tyr Lys Met Gly Glu Glu Asn Ile		
225	230	235
Asn Leu Thr Ile Lys Glu Gln Lys Phe Gln Glu Leu Gln Glu Arg Leu		
245	250	255
Asn Met Glu Leu Glu Leu Asn Glu Lys Ile Asn Glu Glu Ile Thr His		
260	265	270
Ile Gln Glu Glu Lys Gln Asp Ile Ile Ile Ser Phe Gln His Met Gln		
275	280	285

Gln Leu Leu Arg Gln Gln Ile Gln Ala Asn Thr Glu Met Glu Ala Glu
 290 295 300
 Leu Lys Val Leu Lys Glu Asn Asn Gln Thr Leu Glu Arg Asp Asn Glu
 305 310 315 320
 Leu Gln Arg Glu Lys Val Lys Glu Asn Glu Glu Lys Phe Leu Asn Leu
 325 330 335
 Gln Asn Glu His Glu Lys Ala Leu Gly Thr Trp Lys Arg His Ala Glu
 340 345 350
 Glu Leu Asn Gly Glu Ile Asn Lys Ile Lys Asn Glu Leu Ser Ser Leu
 355 360 365
 Lys Glu Thr His Ile Glu Leu Gln Glu His Tyr Asn Lys Leu Cys Asn
 370 375 380
 Gln Lys Thr Phe Glu Glu Asp Lys Lys Phe Gln Asn Val Pro Glu Val
 385 390 395 400
 Asn Asn Glu Asn Ser Glu Met Ser Thr Glu Lys Ser Glu Asn Thr Ile
 405 410 415
 Ile Gln Lys Tyr Asn Thr Glu Gln Glu Ile Arg Glu Glu Asn Met Glu
 420 425 430
 Asn Phe Cys Ser Asp Thr Glu Tyr Arg Glu Lys Glu Lys Lys Arg
 435 440 445
 Arg Leu Ile Tyr Arg Gly Asn Asn Tyr Arg
 450 455

<210> 549

<211> 814

<212> PRT

<213> Homo sapiens

<400> 549

Met Val Lys Gln Thr Ile Gln Ile Phe Ala Arg Val Lys Pro Pro Val
 1 5 10 15
 Arg Lys His Gln Gln Gly Ile Tyr Ser Ile Asp Glu Asp Glu Lys Leu
 20 25 30
 Ile Pro Ser Leu Glu Ile Ile Leu Pro Arg Asp Leu Ala Asp Gly Phe
 35 40 45
 Val Asn Asn Lys Arg Glu Ser Tyr Lys Phe Phe Gln Arg Ile Phe
 50 55 60
 Asp Gln Asp Ala Asn Gln Glu Thr Val Phe Glu Asn Ile Ala Lys Pro
 65 70 75 80
 Val Ala Gly Ser Val Leu Ala Gly Tyr Asn Gly Thr Ile Phe Ala Tyr
 85 90 95
 Gly Gln Thr Gly Ser Gly Lys Thr Phe Thr Ile Thr Gly Gly Ala Glu
 100 105 110
 Arg Tyr Ser Asp Arg Gly Ile Ile Pro Arg Thr Leu Ser Tyr Ile Phe
 115 120 125
 Glu Gln Leu Gln Lys Asp Ser Ser Lys Ile Tyr Thr Thr His Ile Ser
 130 135 140
 Tyr Leu Glu Ile Tyr Asn Glu Cys Gly Tyr Asp Leu Leu Asp Pro Arg
 145 150 155 160
 His Glu Ala Ser Ser Leu Glu Asp Leu Pro Lys Val Thr Ile Leu Glu
 165 170 175
 Asp Pro Asp Gln Asn Ile His Leu Lys Asn Leu Thr Leu His Gln Ala
 180 185 190
 Thr Thr Glu Glu Ala Leu Asn Leu Leu Phe Leu Gly Asp Thr Asn
 195 200 205
 Arg Met Ile Ala Glu Thr Pro Met Asn Gln Ala Ser Thr Arg Ser His
 210 215 220

Cys Ile Phe Thr Ile His Leu Ser. Ser Lys Glu Pro Gly Ser Ala Thr
 225 230 235 240
 Val Arg His Ala Lys Leu His Leu Val Asp Leu Ala Gly Ser Glu Arg
 245 250 255
 Val Ala Lys Thr Gly Val Gly Gly His Leu Leu Thr Glu Ala Lys Tyr
 260 265 270
 Ile Asn Leu Ser Leu His Tyr Leu Glu Gln Val Ile Ile Ala Leu Ser
 275 280 285
 Glu Lys His Arg Ser His Ile Pro Tyr Arg Asn Ser Met Met Thr Ser
 290 295 300
 Val Leu Arg Asp Ser Leu Gly Gly Asn Cys Met Thr Thr Met Ile Ala
 305 310 315 320
 Thr Leu Ser Leu Glu Lys Arg Asn Leu Asp Glu Ser Ile Ser Thr Cys
 325 330 335
 Arg Phe Ala Gln Arg Val Ala Leu Ile Lys Asn Glu Ala Val Leu Asn
 340 345 350
 Glu Glu Ile Asn Pro Arg Leu Val Ile Lys Arg Leu Gln Lys Glu Ile
 355 360 365
 Gln Glu Leu Lys Asp Glu Leu Ala Met Val Thr Gly Glu Gln Arg Thr
 370 375 380
 Glu Ala Leu Thr Glu Ala Glu Leu Leu Gln Leu Glu Lys Leu Ile Thr
 385 390 395 400
 Ser Phe Leu Glu Asp Gln Asp Ser Asp Ser Arg Leu Glu Val Gly Ala
 405 410 415
 Asp Met Arg Lys Val His His Cys Phe His His Leu Lys Lys Leu Leu
 420 425 430
 Asn Asp Lys Lys Ile Leu Glu Asn Asn Thr Val Ser Ser Glu Ser Lys
 435 440 445
 Asp Gln Asp Cys Gln Glu Pro Leu Lys Glu Glu Glu Tyr Arg Lys Leu

450	455	460
Arg Asp Ile Leu Lys Gln Arg Asp Asn Glu Ile Asn Ile Leu Val Asn		
465	470	475
Met Leu Lys Lys Glu Lys Lys Ala Gln Glu Ala Leu His Leu Ala		
485	490	495
Gly Met Asp Arg Arg Glu Phe Arg Gln Ser Gln Ser Pro Pro Phe Arg		
500	505	510
Leu Gly Asn Pro Glu Glu Gly Gln Arg Met Arg Leu Ser Ser Ala Pro		
515	520	525
Ser Gln Ala Gln Asp Phe Ser Ile Leu Gly Lys Arg Ser Ser Leu Leu		
530	535	540
His Lys Lys Ile Gly Met Lys Glu Glu Met Ser Leu Gly Cys Gln Glu		
545	550	555
Ala Phe Glu Ile Phe Lys Arg Asp His Ala Asp Ser Val Thr Ile Asp		
565	570	575
Asp Asn Lys Gln Ile Leu Lys Gln Arg Phe Ser Glu Ala Lys Ala Leu		
580	585	590
Gly Glu Ser Ile Asn Glu Ala Arg Ser Lys Ile Gly His Leu Lys Glu		
595	600	605
Glu Ile Thr Gln Arg His Ile Gln Gln Val Ala Leu Gly Ile Ser Glu		
610	615	620
Asn Met Ala Val Pro Leu Met Pro Asp Gln Gln Glu Glu Lys Leu Arg		
625	630	635
Ser Gln Leu Glu Glu Glu Lys Arg Arg Tyr Lys Thr Met Phe Thr Arg		
645	650	655
Leu Lys Ala Leu Lys Val Glu Ile Glu His Leu Gln Leu Leu Met Asp		
660	665	670
Lys Ala Lys Val Lys Leu Gln Lys Glu Phe Glu Val Trp Trp Ala Glu		
675	680	685

Glu Ala Thr Asn Leu Gln Val Asn Ser Pro Ala Val Asn Ser Leu Asp
 690 695 700
 His Thr Lys Pro Phe Leu Gln Thr Ser Asp Phe Gln His Glu Arg Ser
 705 710 715 720
 Gln Leu Leu Ser Asn Lys Ser Ser Gly Gly Trp Glu Val Gln Asp Gln
 725 730 735
 Gly Thr Gly Arg Phe Asp Val Cys Asp Val Asn Ala Arg Lys Ile Leu
 740 745 750
 Pro Ser Pro Cys Pro Ser Pro His Ser Gln Lys Gln Ser Ser Thr Ser
 755 760 765
 Thr Pro Leu Gly Asp Ser Ile Pro Lys Arg Pro Val Ser Ser Ile Pro
 770 775 780
 Leu Thr Gly Asp Ser Gln Thr Asp Ser Asp Ile Ile Ala Phe Ile Lys
 785 790 795 800
 Ala Arg Gln Ser Ile Leu Gln Lys Gln Cys Leu Gly Ser Asn
 805 810

<210> 550

<211> 503

<212> PRT

<213> Homo sapiens

<400> 550

Met Gly Ala Leu Thr Phe Arg Asp Val Ala Ile Glu Phe Ser Leu Glu
 1 5 10 15
 Glu Trp Gln Cys Leu Asp Thr Glu Gln Gln Asn Leu Tyr Arg Asn Val
 20 25 30
 Met Leu Asp Asn Tyr Arg Asn Leu Val Phe Leu Gly Ile Ala Val Ser

35	40	45
Lys Pro Asp Leu Ile Thr Cys Leu Glu Gln Glu Lys Glu Pro Trp Asn		
50	55	60
Leu Lys Thr His Asp Met Val Ala Lys Pro Pro Val Ile Cys Ser His		
65	70	75
Ile Ala Gln Asp Leu Trp Pro Glu Gln Gly Ile Lys Asp Tyr Phe Gln		
85	90	95
Glu Val Ile Leu Arg Gln Tyr Lys Lys Cys Arg His Glu Asn Leu Leu		
100	105	110
Leu Arg Lys Gly Cys Lys Asn Val Asp Glu Phe Lys Met His Lys Lys		
115	120	125
Gly Tyr Asn Arg His Asn Gln Cys Leu Thr Thr Ser His Ser Lys Ile		
130	135	140
Phe Gln Cys Asp Lys Tyr Val Lys Val Phe His Lys Phe Ser Asn Ser		
145	150	155
Asn Arg His Lys Ile Arg His Thr Ser Lys Lys Pro Phe Lys Cys Lys		
165	170	175
Glu Cys Gly Lys Leu Phe Cys Ile Leu Ser His Leu Ala Gln His Lys		
180	185	190
Lys Ile His Thr Gly Glu Lys Ser Tyr Lys Cys Glu Glu Tyr Gly Lys		
195	200	205
Ala Phe Asn Glu Ser Ser Asn Cys Thr Thr His Lys Arg Ile Thr Glu		
210	215	220
Lys Lys Pro Tyr Lys Cys Lys Glu Cys Gly Lys Ala Phe Asn Trp Phe		
225	230	235
Ser His Phe Thr Thr His Lys Arg Ile His Thr Gly Glu Lys Pro Tyr		
245	250	255
Gln Cys Glu Lys Cys Gly Lys Phe Phe Asn Gln Ser Thr Asn Leu Thr		
260	265	270

Thr His Lys Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Glu
 275 280 285
 Cys Gly Lys Ala Phe Asn Gln Ser Ser Asn Leu Thr Glu His Lys Lys
 290 295 300
 Ile His Thr Lys Glu Gln Pro Tyr Lys Cys Glu Lys Cys Gly Lys Ala
 305 310 315 320
 Phe Lys Trp Ser Ser Thr Leu Thr Lys His Lys Arg Ile His Asn Gly
 325 330 335
 Glu Lys Pro Tyr Lys Cys Glu Cys Gly Lys Ala Phe Asn Arg Ser
 340 345 350
 Ser Thr Leu Asn Arg His Lys Ile Thr His Thr Gly Gly Lys Pro Tyr
 355 360 365
 Lys Tyr Lys Glu Cys Gly Lys Ala Phe Asn Gln Ser Ser Thr Leu Thr
 370 375 380
 Ile His Lys Ile Ile His Thr Val Glu Lys Phe Tyr Lys Cys Glu Glu
 385 390 395 400
 Cys Gly Lys Ala Phe Ser Arg Ile Ser His Leu Thr Thr His Lys Arg
 405 410 415
 Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys Gly Arg Ala
 420 425 430
 Phe Asn Gln Ser Ser Thr Leu Thr Thr His Lys Arg Ile His Thr Gly
 435 440 445
 Glu Lys Pro Tyr Glu Cys Glu Cys Gly Lys Ala Phe Asn Arg Ser
 450 455 460
 Ser Thr Leu Thr Thr His Lys Ile Ile His Ser Gly Glu Lys Ile Tyr
 465 470 475 480
 Lys Cys Lys Glu Cys Gly Lys Ala Phe Arg Arg Phe Ser His Leu Thr
 485 490 495
 Arg His Lys Thr Ile His Thr

500

<210> 551

<211> 388

<212> PRT

<213> Homo sapiens

<400> 551

Met	Leu	Leu	Lys	Glu	Lys	Glu	Asp	Ser	Leu	Met	Thr	Cys	Gln	Gln	Ile
1										10					15
Tyr	Lys	Ala	Leu	Gln	Glu	Glu	Leu	Thr	Val	Lys	Glu	Lys	Gln	Glu	Glu
		20					25								30
Asp	Ile	Lys	Arg	Arg	Ile	Asn	Leu	Ala	Glu	Asn	Glu	Leu	Glu	Ile	Thr
		35				40									45
Lys	Thr	Leu	Leu	Asn	Gln	Thr	Arg	Glu	Glu	Val	Leu	Thr	Leu	Lys	Asn
		50			55						60				
Glu	Arg	Glu	Leu	Met	Leu	Ile	Ser	His	Gln	Lys	Ser	Ile	Glu	Gln	Leu
		65			70						75				80
Gln	Glu	Thr	Leu	Arg	Gln	Lys	Leu	Leu	Ser	Asp	Asp	Asn	Trp	Lys	Glu
		85					90								95
Lys	Ile	Glu	Ala	Glu	Leu	Ala	Lys	Glu	Arg	Ala	Gln	His	Leu	Val	Glu
		100				105									110
Phe	Glu	Glu	Gln	Ala	Leu	Leu	Phe	Lys	Glu	Glu	Thr	Lys	Leu	Gln	Leu
		115				120									125
Asp	Ile	Glu	Lys	Glu	Lys	His	Gln	Asp	Val	Ile	Gln	Lys	Tyr	Lys	Lys
		130			135						140				
Glu	Gln	Glu	Glu	Leu	Gln	Met	Lys	Ile	Ser	Asp	Leu	Ile	Thr	Gly	Ala
		145			150						155				160

Thr Arg Asp Leu Arg Gln Glu Val Thr Thr Leu Lys Glu Lys Leu His
 165 170 175
 Lys Ser His Thr Arg Tyr Thr Glu Glu Ser Asn Ser Lys Glu Lys Glu
 180 185 190
 Ile Glu Asn Leu Lys Asn Leu Val Ala Glu Phe Glu Ser Arg Leu Lys
 195 200 205
 Lys Glu Ile Asp Ser Asn Asp Ser Val Ser Glu Asn Leu Arg Lys Glu
 210 215 220
 Met Glu Gln Lys Ser Asp Glu Leu Lys Arg Val Met Leu Ala Gln Thr
 225 230 235 240
 Gln Leu Ile Glu Gln Phe Asn Gln Ser Gln Glu Glu Asn Thr Phe Leu
 245 250 255
 Gln Glu Thr Val Arg Arg Glu Cys Glu Glu Arg Phe Glu Leu Thr Glu
 260 265 270
 Ala Leu Ser Gln Ala Arg Glu Gln Leu Leu Glu Leu Ser Lys Leu Arg
 275 280 285
 Gly Ser Leu Pro Phe Ser Pro Cys Ser Leu Ser Lys Gly Ser Leu Thr
 290 295 300
 Ser Pro Ala Ala Ala Val Ser Asn His Gly Glu Arg Ser Leu Ala Arg
 305 310 315 320
 Leu Asn Ser Glu Lys Gly Ile Gln Ile Pro Asn Leu Arg Gly Val Ser
 325 330 335
 Lys Pro Thr Thr Phe Pro Thr Ser Asp Lys Pro Lys Arg Val Arg Ser
 340 345 350
 Gly Val Pro Ile Leu Pro Gln Pro His Pro Pro Arg Gly Gly Ala Ser
 355 360 365
 Ser Ala Asn Glu Thr Arg Gln Arg Leu Ala Ala Ile Leu Arg Arg Arg
 370 375 380
 Arg Ser Gln Gln

385

<210> 552

<211> 165

<212> PRT

<213> Homo sapiens

<400> 552

Met Asp Gly Pro Ala Thr Pro Val Ser Thr Asp Ser Asn Pro Pro Thr

1

5

10

15

Gln Gln Glu Asp Arg Ser Ala Cys Lys Cys Thr His Leu Glu Lys Arg

20

25

30

Leu Phe Pro Leu Leu Leu Val Ala Gln Leu Leu Leu Ser Pro Pro Gly

35

40

45

Ala Ala Ala Val Lys Cys Gln Leu Asp Pro Ala Lys Trp Gln Asp Pro

50

55

60

Gln His Ser Ser Ile Cys Ser Val Leu His Leu Arg His Trp Lys Gly

65

70

75

80

Cys Glu Pro Asp Ile Gly Ser Gln Ser Thr Cys Phe Pro Glu Pro Glu

85

90

95

Ser Cys Leu Pro Val Ala Ala Asp Thr Asp Ser Asn Val Thr Pro Ala

100

105

110

Thr Gln Gln Gln Arg Cys Cys Thr Leu Ala Cys Asn Leu Gly Thr Gly

115

120

125

Pro Leu His Leu Leu Leu Ser Leu Leu Met Gln Leu Gly Ala Arg Ala

130

135

140

Cys Ala Thr Gly Ser Asp Leu Thr Ser Thr Ser Ser Arg Ala Thr Val

145

150

155

160

Asn Leu His Val Pro

165

<210> 553

<211> 832

<212> PRT

<213> Homo sapiens

<400> 553

Met Ala Gly Leu Arg Tyr Ser Val Lys Val Tyr Val Leu Asn Glu Asp			
1	5	10	15
Glu Glu Trp Asn Asn Leu Gly Thr Gly Gln Val Ser Ser Thr Tyr Asp			
20	25	30	
Glu Gln Phe Gln Gly Met Ser Leu Leu Val Arg Ser Asp Ser Asp Gly			
35	40	45	
Ser Val Ile Leu Arg Ser Gln Ile Pro Pro Asp Arg Pro Tyr Gly Lys			
50	55	60	
Tyr Gln Glu Thr Leu Ile Val Trp Tyr Glu Ala Glu Asn Gln Gly Leu			
65	70	75	80
Val Leu Lys Phe Gln Asp Pro Ala Gly Cys Gln Asp Ile Trp Lys Glu			
85	90	95	
Ile Cys Gln Ala Gln Gly Lys Asp Pro Ser Ile Gln Thr Thr Val Asn			
100	105	110	
Ile Ser Asp Glu Pro Glu Glu Asp Phe Asn Glu Met Ser Val Ile Ser			
115	120	125	
Asn Met Val Val Leu Pro Asp Cys Glu Leu Asn Thr Leu Asp Gln Ile			
130	135	140	
Ala Asp Ile Val Thr Ser Val Phe Ser Ser Pro Val Thr Asp Arg Glu			

145	150	155	160
Arg Leu Ala Glu Ile Leu Lys Asn Glu Ala Tyr Ile Pro Lys Leu Leu			
165	170	175	
Gln Leu Phe His Thr Cys Glu Asn Leu Glu Asn Thr Glu Gly Leu His			
180	185	190	
His Leu Tyr Glu Ile Ile Lys Gly Ile Leu Phe Leu Asn Glu Ala Cys			
195	200	205	
Leu Phe Glu Ile Met Phe Ser Asp Glu Cys Ile Met Asp Val Val Gly			
210	215	220	
Cys Leu Glu Tyr Asp Pro Ala Leu Asp Gln Pro Lys Arg His Arg Asp			
225	230	235	240
Phe Leu Thr Asn Asp Ala Lys Phe Lys Glu Val Ile Pro Ile Thr Asn			
245	250	255	
Ser Glu Leu Arg Gln Lys Ile His Gln Thr Tyr Arg Leu Gln Tyr Ile			
260	265	270	
Tyr Asp Ile Leu Leu Pro Val Pro Ser Ile Phe Glu Asp Asn Phe Leu			
275	280	285	
Ser Thr Leu Thr Thr Phe Ile Phe Ser Asn Lys Ala Glu Ile Val Ser			
290	295	300	
Met Leu Gln Lys Asp His Lys Phe Leu Tyr Glu Val Phe Ala Gln Leu			
305	310	315	320
Lys Asp Glu Thr Thr His Asp Asp Arg Arg Cys Glu Leu Leu Phe Phe			
325	330	335	
Phe Lys Glu Leu Cys Ser Phe Ser Gln Ala Leu Gln Pro Gln Ser Lys			
340	345	350	
Asp Ala Leu Phe Glu Thr Leu Ile Gln Leu Gly Val Leu Pro Ala Leu			
355	360	365	
Lys Ile Val Met Ile Arg Asp Asp Leu Gln Val Arg Ser Ala Ala Ala			
370	375	380	

Val Ile Cys Ala Tyr Leu Val Glu Tyr Ser Pro Ser Arg Ile Arg Glu
 385 390 395 400
 Phe Ile Ile Ser Glu Ala His Val Cys Lys Asp Ile Tyr Leu Phe Ile
 405 410 415
 Asn Val Ile Ile Lys Gln Met Ile Cys Asp Thr Asp Pro Glu Leu Gly
 420 425 430
 Gly Ala Val His Leu Met Val Val Leu His Thr Leu Leu Asp Pro Arg
 435 440 445
 Asn Met Leu Thr Thr Pro Glu Lys Ser Glu Arg Ser Glu Phe Leu His
 450 455 460
 Phe Phe Tyr Lys His Cys Met His Lys Phe Thr Ala Pro Leu Leu Ala
 465 470 475 480
 Ala Thr Ser Glu His Asn Cys Glu Glu Asp Asp Ile Ala Gly Tyr Asp
 485 490 495
 Lys Ser Lys Asn Cys Pro Asn Asp Asn Gln Thr Ala Gln Leu Leu Ala
 500 505 510
 Leu Ile Leu Glu Leu Leu Thr Phe Cys Ile Gln His His Thr Phe Tyr
 515 520 525
 Ile Arg Ser Tyr Ile Leu Asn Lys Asp Leu Leu Arg Lys Ala Leu Ile
 530 535 540
 Leu Met Asn Ser Lys His Thr His Leu Ile Leu Cys Val Leu Arg Phe
 545 550 555 560
 Met Arg Arg Met Ile Cys Leu Asn Asp Glu Ala Tyr Asn Asn Tyr Ile
 565 570 575
 Ile Lys Gly Asn Leu Phe Glu Pro Val Val Asn Ala Leu Leu Asp Asn
 580 585 590
 Gly Thr Arg Tyr Asn Met Leu Asn Ser Ala Ile Leu Glu Leu Phe Glu
 595 600 605
 Tyr Ile Arg Val Glu Asn Ile Lys Pro Leu Val Ser His Ile Val Glu

610	615	620
Lys Phe Tyr Asn Thr Leu Glu Ser Ile Glu Tyr Val Gln Thr Phe Lys		
625	630	635
Gly Leu Lys Ile Lys Tyr Glu Lys Glu Arg Asp Arg Gln Ser Gln Ile		
645	650	655
Gln Lys Asn Leu His Ser Val Leu Gln Asn Ile Val Val Phe Arg Gly		
660	665	670
Thr Ile Glu Glu Ile Gly Leu Glu Glu Ile Cys Phe Met Glu Asp		
675	680	685
Ala Gly Glu Ala Val Met Pro Pro Leu Glu Asp Asp Asp Glu Phe Met		
690	695	700
Glu Thr Lys Arg Thr Gln Glu Gly Glu Ala Val Met Pro Pro Leu Glu		
705	710	715
Asp Asp Asp Lys Phe Thr Glu Thr Lys Arg Thr His Gln Glu Gly Glu		
725	730	735
Ala Val Met Pro Pro Leu Glu Asp Asp Glu Phe Met Glu Thr Lys		
740	745	750
Arg Asn Gln Glu His Glu Gly Lys Val Asp Ser Pro Lys Arg Thr Ser		
755	760	765
Ser Gly Asp Phe Lys Phe Ser Ser Ser Tyr Ser Ala Cys Ala Ala Ile		
770	775	780
Gly Thr Gly Ser Pro Ser Gly Ser Ser Val Val Arg Leu Val Asp His		
785	790	795
Pro Asp Asp Glu Glu Glu Lys Glu Glu Asp Glu Glu Lys Glu Glu		
805	810	815
Asp Lys Glu Asp Glu Thr Ser Pro Lys Lys Pro His Leu Ser Ser		
820	825	830

<210> 554

<211> 250

<212> PRT

<213> Homo sapiens

<400> 554

Met Phe His Gly Thr Val Thr Glu Glu Leu Thr Ser His Glu Glu Trp

1 5 10 15

Ser His Tyr Asn Glu Asn Ile Arg Glu Gly Gln Lys Asp Phe Val Phe

20 25 30

Val Lys Phe Asn Gly Leu His Leu Lys Ser Met Glu Asn Leu Gln Ser

35 40 45

Cys Ile Ser Leu Arg Val Cys Ile Phe Ser Asn Asn Phe Ile Thr Asp

50 55 60

Ile His Pro Leu Gln Ser Cys Ile Lys Leu Ile Lys Leu Asp Leu His

65 70 75 80

Gly Asn Gln Ile Lys Ser Leu Pro Asn Thr Lys Phe Trp Asn Gly Leu

85 90 95

Lys Asn Leu Lys Leu Leu Tyr Leu His Asp Asn Gly Phe Ala Lys Leu

100 105 110

Lys Asn Ile Cys Val Leu Ser Ala Cys Pro Thr Leu Ile Ala Leu Thr

115 120 125

Met Phe Asp Cys Pro Val Ser Leu Lys Lys Gly Tyr Arg His Val Leu

130 135 140

Val Asn Ser Ile Trp Pro Leu Lys Ala Leu Asp His His Val Ile Ser

145 150 155 160

Asp Glu Glu Ile Ile Gln Asn Trp His Leu Pro Glu Arg Phe Lys Ala

165 170 175

Cys Asn His Arg Leu Phe Phe Asn Phe Cys Pro Ala Leu Arg Lys Gly

180	185	190
Thr Thr Tyr Glu Glu Ile Asn Asn Ile Lys His Ile Thr Ser Lys		
195	200	205
Ile Asn Ala Ile Leu Ala His Asn Ser Pro Val Leu Ile Val Gln Arg		
210	215	220
Trp Ile Arg Gly Phe Leu Val Arg Lys Asn Leu Ser Pro Val Phe Phe		
225	230	235
His Lys Lys Lys Thr Ala Gly Lys Asn Tyr		
245	250	

<210> 555

<211> 788

<212> PRT

<213> Homo sapiens

<400> 555

Met Ala Cys Leu Thr His Arg Asn Glu Thr Asp Ala Arg Met Glu Phe

1 5 10 15

Tyr Ser Leu Phe His Lys Gly Asn Lys Ala Gly Val Gln Trp His Asp

20 25 30

Leu Gly Ser Leu Gln Pro Leu Pro Pro Arg Phe Lys Arg Phe Ser Cys

35 40 45

Leu Ser Leu Gln Ser Ser Trp Asp Tyr Ser Leu Ser Lys Phe Asp Glu

50 55 60

Arg Cys Cys Phe Leu Tyr Val His Asp Asn Ser Asp Asp Phe Gln Ile

65 70 75 80

Tyr Phe Ser Thr Glu Glu Gln Cys Ser Arg Phe Phe Ser Leu Val Lys

85 90 95

Glu Met Ile Thr Asn Thr Ala Gly Ser Thr Val Glu Leu Glu Gly Glu
 100 105 110
 Thr Asp Gly Asp Thr Leu Glu Tyr Glu Tyr Asp His Asp Ala Asn Gly
 115 120 125
 Glu Arg Val Val Leu Gly Lys Gly Thr Tyr Gly Ile Val Tyr Ala Gly
 130 135 140
 Arg Asp Leu Ser Asn Gln Val Arg Ile Ala Ile Lys Glu Ile Pro Glu
 145 150 155 160
 Arg Asp Ser Arg Tyr Ser Gln Pro Leu His Glu Glu Ile Ala Leu His
 165 170 175
 Lys Tyr Leu Lys His Arg Asn Ile Val Gln Tyr Leu Gly Ser Val Ser
 180 185 190
 Glu Asn Gly Tyr Ile Lys Ile Phe Met Glu Gln Val Pro Gly Gly Ser
 195 200 205
 Leu Ser Ala Leu Leu Arg Ser Lys Trp Gly Pro Met Lys Glu Pro Thr
 210 215 220
 Ile Lys Phe Tyr Thr Lys Gln Ile Leu Glu Gly Leu Lys Tyr Leu His
 225 230 235 240
 Glu Asn Gln Ile Val His Arg Asp Ile Lys Gly Asp Asn Val Leu Val
 245 250 255
 Asn Thr Tyr Ser Gly Val Val Lys Ile Ser Asp Leu Gly Thr Ser Lys
 260 265 270
 Arg Leu Ala Gly Val Asn Pro Cys Thr Glu Thr Phe Thr Gly Thr Leu
 275 280 285
 Gln Tyr Met Ala Pro Glu Ile Ile Asp Gln Gly Pro Arg Gly Tyr Gly
 290 295 300
 Ala Pro Ala Asp Ile Trp Ser Leu Gly Cys Thr Ile Ile Glu Met Ala
 305 310 315 320
 Thr Ser Lys Pro Pro Phe His Glu Leu Gly Glu Pro Gln Ala Ala Met

325	330	335
Phe Lys Val Gly Met Phe Lys Ile His Pro Glu Ile Pro Glu Ala Leu		
340	345	350
Ser Ala Glu Ala Arg Ala Phe Ile Leu Ser Cys Phe Glu Pro Asp Pro		
355	360	365
His Lys Arg Ala Thr Thr Ala Glu Leu Leu Arg Glu Gly Phe Leu Arg		
370	375	380
Gln Val Asn Lys Gly Lys Lys Asn Arg Ile Ala Phe Lys Pro Ser Glu		
385	390	395
Gly Pro Arg Gly Val Val Leu Ala Leu Pro Thr Gln Gly Glu Pro Met		
405	410	415
Ala Thr Ser Ser Ser Glu His Gly Ser Val Ser Pro Asp Ser Asp Ala		
420	425	430
Gln Pro Asp Ala Leu Phe Glu Arg Thr Arg Ala Pro Arg His His Leu		
435	440	445
Gly His Leu Leu Ser Val Pro Asp Glu Ser Ser Ala Leu Glu Asp Arg		
450	455	460
Gly Leu Ala Ser Ser Pro Glu Asp Arg Asp Gln Gly Leu Phe Leu Leu		
465	470	475
Arg Lys Asp Ser Glu Arg Arg Ala Ile Leu Tyr Ile Leu Trp Glu		
485	490	495
Glu Gln Asn Gln Val Ala Ser Asn Leu Gln Glu Cys Val Ala Gln Ser		
500	505	510
Ser Glu Glu Leu His Leu Ser Val Gly His Ile Lys Gln Ile Ile Gly		
515	520	525
Ile Leu Arg Asp Phe Ile Arg Ser Pro Glu His Arg Val Met Ala Thr		
530	535	540
Thr Ile Ser Lys Leu Lys Val Asp Leu Asp Phe Asp Ser Ser Ser Ile		
545	550	555
560		

Ser Gln Ile His Leu Val Leu Phe Gly Phe Gln Asp Ala Val Asn Lys
 565 570 575
 Ile Leu Arg Asn His Leu Ile Arg Pro His Trp Met Phe Ala Met Asp
 580 585 590
 Asn Ile Ile Arg Arg Ala Val Gln Ala Ala Val Thr Ile Leu Ile Pro
 595 600 605
 Glu Leu Arg Ala His Phe Glu Pro Thr Cys Glu Thr Glu Gly Val Asp
 610 615 620
 Lys Asp Met Asp Glu Ala Glu Glu Gly Tyr Pro Pro Ala Thr Gly Pro
 625 630 635 640
 Gly Gln Glu Ala Gln Pro His Gln Gln His Leu Ser Leu Gln Leu Gly
 645 650 655
 Glu Leu Arg Gln Glu Thr Asn Arg Leu Leu Glu His Leu Val Glu Lys
 660 665 670
 Glu Arg Glu Tyr Gln Asn Leu Leu Arg Gln Thr Leu Glu Gln Lys Thr
 675 680 685
 Gln Glu Leu Tyr His Leu Gln Leu Lys Leu Lys Ser Asn Cys Ile Thr
 690 695 700
 Glu Asn Pro Ala Gly Pro Tyr Gly Gln Arg Thr Asp Lys Glu Leu Ile
 705 710 715 720
 Asp Trp Leu Arg Leu Gln Gly Ala Asp Ala Lys Thr Ile Glu Lys Ile
 725 730 735
 Val Glu Glu Gly Tyr Thr Leu Ser Asp Ile Leu Asn Glu Ile Thr Lys
 740 745 750
 Glu Asp Leu Arg Tyr Leu Arg Leu Arg Gly Gly Leu Leu Cys Arg Leu
 755 760 765
 Trp Ser Ala Val Ser Gln Tyr Arg Arg Ala Gln Glu Ala Ser Glu Thr
 770 775 780
 Lys Asp Lys Ala

785

<210> 556

<211> 266

<212> PRT

<213> Homo sapiens

<400> 556

Met Leu Ile Asn Val Ile Ser Gly Ser Ser Tyr Met Ile His Ser Thr

1

5

10

15

Gln Leu Ile Glu Asn Ala Glu Leu Arg Phe His Thr Asp Glu Gln Leu

20

25

30

Met Thr Leu Phe Met Gln Leu Gln Thr Ala Val Arg Ser Arg Met His

35

40

45

Pro Phe Tyr Ile Thr His Ile Arg Ala His Thr Pro Leu Pro Gly Pro

50

55

60

Leu Thr Ala Gly Asn Gln Met Ala Asp Arg Leu Val Ala Thr Ala Ile

65

70

75

80

Ser Asn Ala Arg His Phe His Asn Leu Thr Arg Val Asn Ala Ser Gly

85

90

95

Leu Lys Arg Arg Tyr Ser Ser Thr Arg Lys Glu Ala Lys Ala Ile Ile

100

105

110

Gln Arg Cys Pro Thr Cys Gln Met Val His Ser Ser Phe Thr Gly

115

120

125

Gly Val Asn Pro Arg Arg Leu Glu Pro Asn Ser Leu Trp Glu Met Asp

130

135

140

Val Thr His Val Pro Ser Phe Gly Arg Leu Ala Tyr Val His Ala Cys

145

150

155

160

Val Asp Thr Phe Ser Leu Trp Ala Ala Cys Gln Ser Gly Glu Ser Ser
 165 170 175
 Ala Tyr Val Lys Arg His Leu Leu Gln Cys Phe Val Val Ile Gly Ile
 180 185 190
 Leu Ala Ser Ile Lys Thr Asp Asn Ala Pro Gly Tyr Thr Ser Gln Ala
 195 200 205
 Leu Ala Thr Phe Phe Ser Ile Arg Asn Ile Lys His Ile Thr Gly Ile
 210 215 220
 Pro Tyr Asn Ser Gln Gly Gln Ala Ile Val Glu Arg Met Asn Leu Ser
 225 230 235 240
 Leu Lys Gln Gln Leu Gln Lys Gln Lys Gly Glu Asn Arg Asp Tyr Gly
 245 250 255
 Thr Pro His Met Gln Leu Asn Arg Ile Ile
 260 265

<210> 557

<211> 279

<212> PRT

<213> Homo sapiens

<400> 557

Met Gly Thr Ser Cys Leu Pro Asp Thr Phe Thr Lys Leu Ile Asn Pro
 1 5 10 15
 Gln Glu Asn Thr Cys Ser Leu Glu Glu Phe Val Leu Gln Leu Glu Leu
 20 25 30
 Ser Gly Tyr Ser Pro Glu Asp Leu Thr Ala Ala Leu Glu Ile Leu Glu
 35 40 45
 Ala Ile Ile Ala Thr Gly Cys Phe Gly Ile Asp Lys Glu Glu Leu Arg

50	55	60
Arg Arg Phe Ser Ala Leu Glu Lys Ala Gly Gly Gly Arg Thr Arg Thr		
65	70	75
Phe Ala Asp Cys Ile Gln Ala Leu Leu Glu Gln His Gln Val Leu Glu		
85	90	95
Val Gly Gly Asn Thr Ala Arg Leu Val Ala Met Gly Ser Ala Trp Pro		
100	105	110
Trp Leu Leu His Ser Val Arg Leu Lys Asp Arg Glu Asp Ala Asp Ile		
115	120	125
Gln Arg Glu Asp Pro Gln Ala Arg Pro Leu Glu Gly Ser Ser Ser Glu		
130	135	140
Asp Ser Pro Pro Glu Gly Gln Ala Pro Pro Ser His Ser Pro Arg Gly		
145	150	155
Thr Lys Arg Arg Ala Ser Trp Ala Ser Glu Asn Gly Glu Thr Asp Ala		
165	170	175
Glu Gly Thr Gln Met Thr Pro Ala Lys Arg Pro Ala Leu Gln Asp Ser		
180	185	190
Asn Leu Ala Pro Ser Leu Gly Pro Gly Ala Glu Asp Gly Ala Glu Ala		
195	200	205
Gln Ala Pro Ser Pro Pro Ala Leu Glu Asp Thr Ala Ala Ala Gly		
210	215	220
Ala Ala Gln Glu Asp Gln Glu Gly Val Gly Glu Phe Ser Ser Pro Gly		
225	230	235
Gln Glu Gln Leu Ser Gly Gln Ala Gln Pro Pro Glu Gly Ser Glu Asp		
245	250	255
Pro Arg Gly Thr Ala Arg Leu Val Pro His Pro Thr Ser Pro His Pro		
260	265	270
Gly Phe Pro Ser Pro Pro Pro		
275		

<210> 558

<211> 325

<212> PRT

<213> Homo sapiens

<400> 558

Met Pro Ser Arg Ile Leu Asp Lys Glu Leu Leu Ser Gly Ile Pro Asp
1 5 10 15
Thr Glu Arg Leu Ser Glu Val Val Asp Asn Arg Ala Pro Gln Arg Asp
20 25 30
Pro Thr His Arg Ala Pro Gln Arg Asp Pro Thr His Arg Ala Pro Gln
35 40 45
Arg Asp Pro Thr His Arg Ala Pro Gln Arg Asp Pro Thr His Arg Ala
50 55 60
Pro Gln Arg Asp Pro Thr His Arg Ala Pro Gln Arg Asp Pro Thr His
65 70 75 80
Arg Pro Pro Gln Arg Asp Pro Thr His Arg Ala Pro Gln Arg Asp Pro
85 90 95
Thr His Arg Ala Pro Gln Arg Asp Pro Thr His Arg Ala Pro Gln Arg
100 105 110
Gly Pro Arg His Arg Ala Pro Gln Arg Ser Pro Arg His Arg Ala Pro
115 120 125
Gln Arg Asp Pro Thr His Arg Ala Pro Gln Arg Gly Pro Arg His Arg
130 135 140
Ala Pro Gln Arg Asp Pro Thr His Arg Ala Pro Gln Arg Gly Pro Arg
145 150 155 160
His Arg Ala Pro Gln Arg Gly Pro Thr His Arg Ala Pro Gln Arg Gly

165	170	175
Pro Arg His Arg Ala Pro Gln Arg Gly Pro Arg His Arg Ala Pro Gln		
180	185	190
Arg Gly Pro Thr His Arg Ala Pro Gln Arg Asp Pro Gly Trp Arg Ala		
195	200	205
Pro Gln Arg Gly Pro Thr His Arg Ala Pro Gln Arg Ile Leu Asp Ala		
210	215	220
Glu Pro Val Ser Gly Phe Leu Asp Ala Glu Ser Leu Ser Gly Ile Leu		
225	230	235
Val Val Glu Arg Leu Ser Gly Ile Leu Asp Ala Glu Arg Leu Ser Gly		
245	250	255
Ile Leu Asp Thr Glu Arg Leu Ser Leu Val Leu His Thr Glu Arg Leu		
260	265	270
Ser Gly Ile Leu Val Gly Glu Arg Leu Ser Gly Val Leu His Thr Glu		
275	280	285
Arg Leu Ser Gly Ile Leu Val Gly Glu Arg Leu Ser Gly Ile Leu Asp		
290	295	300
Thr Glu Arg Leu Ser Gly Ile Leu Asp Thr Glu Pro Leu Ser Glu Ser		
305	310	315
Gln Ile His Ser Ala		
	325	

<210> 559

<211> 378

<212> PRT

<213> Homo sapiens

<400> 559

Met Met Leu Ser Arg Lys Leu Pro Val His Val Asp Asp Pro Leu Ser
 1 5 10 15
 Thr Thr Leu Phe Ser Ser Gln Leu Asn Arg Arg Ile Ser Asn Met Asp
 20 25 30
 Asp Lys Val Tyr Lys Met Ser Arg Ala Leu Ala Glu Ile Lys Lys Arg
 35 40 45
 Phe Gln Lys Thr Val Thr Gln Phe Ile Asn Ser Ile Leu Leu Ala Ala
 50 55 60
 Gly Leu Phe Thr Ile Glu Tyr Pro Thr Lys Lys Glu Glu Glu Phe
 65 70 75 80
 Val Arg Phe Lys Met Arg Ser Arg Thr His Pro Glu Arg Leu Pro Lys
 85 90 95
 Leu Ser Leu Tyr Ser Gly Glu Ser Leu Leu Arg Ser Gln Ser Gly His
 100 105 110
 Leu Glu Ser Ser Ile Ala Glu Thr Leu Lys Asp Glu Pro Glu Ser Ala
 115 120 125
 Pro Val Ser Pro Val Arg Lys Thr Thr Lys Ile His Thr Lys Ala Lys
 130 135 140
 Val Thr Ser Arg Gly Lys Ala Arg Glu Gly Arg Ser Pro Thr Arg Trp
 145 150 155 160
 Ala Ala Leu Pro Ser Asp Cys Pro Leu Val Leu Arg Lys Leu Met Leu
 165 170 175
 Lys Glu Asp Thr Arg Ala Gly Cys Lys Cys Leu Val Lys Ala Pro Leu
 180 185 190
 Val Ser Asp Val Glu Leu Glu Arg Phe Leu Leu Ala Pro Arg Asp Pro
 195 200 205
 Ser Gln Val Leu Val Phe Gly Ile Ile Ser Ser Gln Asn Tyr Thr Ser
 210 215 220
 Thr Gly Gln Leu Gln Trp Leu Leu Asn Thr Leu Tyr Asn His Gln Gln

225	230	235	240
Arg Gly Arg Gly Ser Pro Cys Ile Gln Cys Arg Tyr Asp Ser Tyr Arg			
245	250	255	
Leu Leu Gln Tyr Asp Leu Asp Ser Pro Leu Gln Glu Asp Pro Pro Leu			
260	265	270	
Met Val Lys Lys Asn Ser Val Val Gln Gly Met Ile Leu Met Phe Ala			
275	280	285	
Gly Gly Lys Leu Ile Phe Gly Gly Arg Val Leu Asn Gly Tyr Gly Leu			
290	295	300	
Ser Lys Gln Asn Leu Leu Lys Gln Ile Phe Arg Ser Gln Gln Asp Tyr			
305	310	315	320
Lys Met Gly Tyr Phe Leu Pro Asp Asp Tyr Lys Phe Ser Val Pro Asn			
325	330	335	
Ser Val Leu Ser Leu Glu Asp Ser Glu Ser Val Lys Lys Ala Glu Ser			
340	345	350	
Glu Asp Ile Gln Gly Ser Ser Ser Leu Ala Leu Glu Asp Tyr Val			
355	360	365	
Glu Lys Glu Leu Ser Leu Glu Ala Glu Lys			
370	375		

<210> 560

<211> 455

<212> PRT

<213> Homo sapiens

<400> 560

Met Gly Val Ile Ile Ser Gly Ser Leu Pro Pro Phe Ser Ser Pro Leu

1

5

10

15

Gln Val Gly Pro Val Ser Leu Leu Ala Ile Gly Val Leu Thr Val His
 20 25 30
 Cys Met Val Ile Leu Leu Asn Cys Ala Gln His Leu Ser Gln Arg Leu
 35 40 45
 Gln Lys Thr Phe Val Asn Tyr Gly Glu Ala Thr Met Tyr Gly Leu Glu
 50 55 60
 Thr Cys Pro Asn Thr Trp Leu Arg Ala His Ala Val Trp Gly Arg Trp
 65 70 75 80
 Asn Leu Ala Leu Ser Pro Arg Leu Glu Cys Ser Gly Lys Ile Ser Ala
 85 90 95
 His Cys Asn Pro His Leu Gln Gly Ser Ser Asn Ser Pro Ala Gln Ala
 100 105 110
 Ser Arg Val Ala Gly Ile Tyr Arg Tyr Thr Val Ser Phe Leu Leu Val
 115 120 125
 Ile Thr Gln Leu Gly Phe Cys Ser Val Tyr Phe Met Phe Met Ala Asp
 130 135 140
 Asn Leu Gln Gln Met Val Glu Lys Ala His Val Thr Ser Asn Ile Cys
 145 150 155 160
 Gln Pro Arg Glu Ile Leu Thr Leu Thr Pro Ile Leu Asp Ile Arg Phe
 165 170 175
 Tyr Met Leu Ile Ile Leu Pro Phe Leu Ile Leu Leu Val Phe Ile Gln
 180 185 190
 Asn Leu Lys Val Leu Ser Val Phe Ser Thr Leu Ala Asn Ile Thr Thr
 195 200 205
 Leu Gly Ser Met Ala Leu Ile Phe Glu Tyr Ile Met Glu Gly Ile Pro
 210 215 220
 Tyr Pro Ser Asn Leu Pro Leu Met Ala Asn Trp Lys Thr Phe Leu Leu
 225 230 235 240
 Phe Phe Gly Thr Ala Ile Phe Thr Phe Glu Gly Val Gly Met Val Leu

245	250	255
Pro Leu Lys Asn Gln Met Lys His Pro Gln Gln Phe Ser Phe Val Leu		
260	265	270
Tyr Leu Gly Met Ser Ile Val Ile Ile Leu Tyr Ile Leu Leu Gly Thr		
275	280	285
Leu Gly Tyr Met Lys Phe Gly Ser Asp Thr Gln Ala Ser Ile Thr Leu		
290	295	300
Asn Leu Pro Asn Cys Trp Leu Tyr Gln Ser Val Lys Leu Met Tyr Ser		
305	310	315
Ile Gly Ile Phe Phe Thr Tyr Ala Leu Gln Phe His Val Pro Ala Glu		
325	330	335
Ile Ile Ile Pro Phe Ala Ile Ser Gln Val Ser Glu Ser Trp Ala Leu		
340	345	350
Phe Val Asp Leu Ser Val Arg Ser Ala Leu Val Cys Leu Thr Cys Val		
355	360	365
Ser Ala Ile Leu Ile Pro Arg Leu Asp Leu Val Ile Ser Leu Val Gly		
370	375	380
Ser Val Ser Ser Ala Leu Ala Leu Ile Ile Pro Ala Leu Leu Glu		
385	390	395
Ile Val Ile Phe Tyr Ser Glu Asp Met Ser Cys Val Thr Ile Ala Lys		
405	410	415
Asp Ile Met Ile Ser Ile Val Gly Leu Leu Gly Cys Ile Phe Gly Thr		
420	425	430
Tyr Gln Ala Leu Tyr Glu Leu Pro Gln Pro Ile Ser His Ser Met Ala		
435	440	445
Asn Ser Thr Gly Val His Ala		
450	455	

<210> 561

<211> 162

<212> PRT

<213> Homo sapiens

<400> 561

Met Ser Ile Thr Arg Leu His Glu Gln Lys Leu Val Gln His Val Val

1

5

10

15

Ser Gln Asn Cys Asp Gly Leu His Leu Arg Ser Gly Leu Pro Arg Thr

20

25

30

Ala Ile Ser Glu Leu His Gly Asn Met Tyr Ile Glu Val Ser Ser Pro

35

40

45

Ala Gly Thr Gln Gly Leu His Gly Gln Ala Gly Pro Thr His Cys Ala

50

55

60

Leu Leu Pro Leu Gly Leu Tyr Leu Leu Arg Ser Gln Gln Gly Val Arg

65

70

75

80

Ala Gly Val Arg Cys Asp Gly Ala His Cys Pro Pro Gln Thr Pro Asp

85

90

95

Arg Pro Asp Leu Pro Gln Val Trp Asp Pro Ala Ala Gly His His Cys

100

105

110

Ala Leu Trp Gly Glu Gly Asp Val Gly Ala Ala Ser Glu Leu Gly Ser

115

120

125

Gly Asp Arg Gly Cys Gln Gln Ser Arg His His Pro Val Ser Arg Val

130

135

140

Gln Pro Glu Gly Ser Lys Glu Val Pro Thr Pro Leu Val His Asp Gln

145

150

155

160

Ala Pro

<210> 562

<211> 567

<212> PRT

<213> Homo sapiens

<400> 562

Met Asp Asp Lys Asp Ile Asp Lys Glu Leu Arg Gln Lys Leu Asn Phe

1 5 10 15

Ser Tyr Cys Glu Glu Thr Glu Ile Glu Gly Gln Lys Lys Val Glu Glu

20 25 30

Ser Arg Glu Ala Ser Ser Gln Thr Pro Glu Lys Gly Glu Val Gln Asp

35 40 45

Ser Glu Ala Lys Gly Thr Pro Pro Trp Thr Pro Leu Ser Asn Val His

50 55 60

Glu Leu Asp Thr Ser Ser Glu Lys Asp Lys Glu Ser Pro Asp Gln Ile

65 70 75 80

Leu Arg Thr Pro Val Ser His Pro Leu Lys Cys Pro Glu Thr Pro Ala

85 90 95

Gln Pro Asp Ser Arg Ser Lys Leu Leu Pro Ser Asp Ser Pro Ser Thr

100 105 110

Pro Lys Thr Met Leu Ser Arg Leu Val Ile Ser Pro Thr Gly Lys Leu

115 120 125

Pro Ser Arg Gly Pro Lys His Leu Lys Leu Thr Pro Ala Pro Leu Lys

130 135 140

Asp Glu Met Thr Ser Leu Ala Leu Val Asn Ile Asn Pro Phe Thr Pro

145 150 155 160

Glu Ser Tyr Lys Lys Leu Phe Leu Gln Ser Gly Gly Lys Arg Lys Ile

165 170 175

Arg Gly Asp Leu Glu Glu Ala Gly Pro Glu Glu Gly Lys Gly Gly Leu
 180 185 190
 Pro Ala Lys Arg Cys Val Leu Arg Glu Thr Asn Met Ala Ser Arg Tyr
 195 200 205
 Glu Lys Glu Phe Leu Glu Val Glu Lys Ile Gly Val Gly Glu Phe Gly
 210 215 220
 Thr Val Tyr Lys Cys Ile Lys Arg Leu Asp Gly Cys Val Tyr Ala Ile
 225 230 235 240
 Lys Arg Ser Met Lys Thr Phe Thr Glu Leu Ser Asn Glu Asn Ser Ala
 245 250 255
 Leu His Glu Val Tyr Ala His Ala Val Leu Gly His His Pro His Val
 260 265 270
 Val Arg Tyr Tyr Ser Ser Trp Ala Glu Asp Asp His Met Ile Ile Gln
 275 280 285
 Asn Glu Tyr Cys Asn Gly Gly Ser Leu Gln Ala Ala Ile Ser Glu Asn
 290 295 300
 Thr Lys Ser Gly Asn His Phe Glu Glu Pro Lys Leu Lys Asp Ile Leu
 305 310 315 320
 Leu Gln Ile Ser Leu Gly Leu Asn Tyr Ile His Asn Ser Ser Met Val
 325 330 335
 His Leu Asp Ile Lys Pro Ser Asn Ile Phe Ile Cys His Lys Val Gln
 340 345 350
 Ser Glu Ser Ser Gly Val Ile Glu Glu Val Glu Asn Glu Ala Asp Trp
 355 360 365
 Phe Leu Ser Ala Asn Val Met Tyr Lys Ile Gly Asp Leu Gly His Ala
 370 375 380
 Thr Ser Ile Asn Lys Pro Lys Val Glu Glu Gly Asp Ser Arg Phe Leu
 385 390 395 400
 Ala Asn Glu Ile Leu Gln Glu Asp Tyr Arg His Leu Pro Lys Ala Asp

405	410	415
Ile Phe Ala Leu Gly Leu Thr Ile Ala Val Ala Ala Gly Ala Glu Ser		
420	425	430
Leu Pro Thr Asn Gly Ala Ala Trp His His Ile Arg Lys Gly Asn Phe		
435	440	445
Pro Asp Val Pro Gln Glu Leu Ser Glu Ser Phe Ser Ser Leu Leu Lys		
450	455	460
Asn Met Ile Gln Pro Asp Ala Glu Gln Arg Pro Ser Ala Ala Ala Leu		
465	470	475
Ala Arg Asn Thr Val Leu Arg Pro Ser Leu Gly Lys Thr Glu Glu Leu		
485	490	495
Gln Gln Gln Leu Asn Leu Glu Lys Phe Lys Thr Ala Thr Leu Glu Arg		
500	505	510
Glu Leu Arg Glu Ala Gln Gln Ala Gln Ser Pro Gln Gly Tyr Thr His		
515	520	525
Tyr Gly Asp Thr Gly Val Ser Gly Thr His Thr Gly Ser Arg Ser Thr		
530	535	540
Lys Arg Leu Val Gly Gly Lys Ser Ala Arg Ser Ser Ser Phe Thr Ser		
545	550	555
Gly Glu Arg Glu Pro Leu His		
565		

<210> 563

<211> 140

<212> PRT

<213> Homo sapiens

<400> 563

Met Asp Phe Ile Val Ala Ala Ser Asn Leu Arg Ala Glu Asn Tyr Asp
 1 5 10 15
 Ile Pro Ser Ala Asp Arg His Lys Ser Lys Leu Ile Ala Gly Lys Ile
 20 25 30
 Ile Pro Ala Ile Ala Thr Thr Ala Ala Val Val Gly Leu Val Cys
 35 40 45
 Leu Glu Leu Tyr Lys Val Val Gln Gly His Arg Gln Leu Asp Ser Tyr
 50 55 60
 Lys Asn Gly Phe Leu Asn Leu Ala Leu Pro Phe Phe Gly Phe Ser Glu
 65 70 75 80
 Pro Leu Ala Ala Pro Arg His Gln Tyr Tyr Asn Gln Glu Trp Thr Leu
 85 90 95
 Trp Asp Arg Phe Glu Val Gln Gly Leu Gln Pro Asn Gly Glu Glu Met
 100 105 110
 Thr Leu Lys Gln Phe Leu Asp Tyr Phe Lys Val Arg Pro Leu Pro Tyr
 115 120 125
 Ser Val Thr Pro Pro Gln Gly Ala Arg Cys Thr Arg
 130 135 140

<210> 564
 <211> 477
 <212> PRT
 <213> Homo sapiens

<400> 564
 Met Ser Ala Ala Pro Gly Leu Leu His Gln Glu Leu Ser Cys Pro Leu
 1 5 10 15
 Cys Leu Gln Leu Phe Asp Ala Pro Val Thr Ala Glu Cys Gly His Ser

20	25	30
Phe Cys Arg Ala Cys Leu Gly Arg Val Ala Gly Glu Pro Ala Ala Asp		
35	40	45
Gly Thr Val Leu Cys Pro Cys Cys Gln Ala Pro Thr Arg Pro Gln Ala		
50	55	60
Leu Ser Thr Asn Leu Gln Leu Ala Arg Leu Val Glu Gly Leu Ala Gln		
65	70	75
Val Pro Gln Gly His Cys Glu Glu His Leu Asp Pro Leu Ser Ile Tyr		
85	90	95
Cys Glu Gln Asp Arg Ala Leu Val Cys Gly Val Cys Ala Ser Leu Gly		
100	105	110
Ser His Arg Gly His Arg Leu Leu Pro Ala Ala Glu Ala His Ala Arg		
115	120	125
Leu Lys Thr Gln Leu Pro Gln Gln Lys Leu Gln Leu Gln Glu Ala Cys		
130	135	140
Met Arg Lys Glu Lys Ser Val Ala Val Leu Glu His Gln Leu Val Glu		
145	150	155
Val Glu Glu Thr Val Arg Gln Phe Arg Gly Ala Val Gly Glu Gln Leu		
165	170	175
Gly Lys Met Arg Val Phe Leu Ala Ala Leu Glu Gly Ser Leu Asp Cys		
180	185	190
Glu Ala Glu Arg Val Arg Gly Glu Ala Gly Val Ala Leu Arg Arg Glu		
195	200	205
Leu Gly Ser Leu Asn Ser Tyr Leu Glu Gln Leu Arg Gln Met Glu Lys		
210	215	220
Val Leu Glu Glu Val Ala Asp Lys Pro Gln Thr Glu Phe Leu Met Lys		
225	230	235
Tyr Cys Leu Val Thr Ser Arg Leu Gln Lys Ile Leu Ala Glu Ser Pro		
245	250	255

Pro Pro Ala Arg Leu Asp Ile Gln Leu Pro Ile Ile Ser Asp Asp Phe
 260 265 270
 Lys Phe Gln Val Trp Arg Lys Met Phe Arg Ala Leu Met Pro Ala Leu
 275 280 285
 Glu Glu Leu Thr Phe Asp Pro Ser Ser Ala His Pro Ser Leu Val Val
 290 295 300
 Ser Ser Ser Gly Arg Arg Val Glu Cys Ser Glu Gln Lys Ala Pro Pro
 305 310 315 320
 Ala Gly Glu Asp Pro Arg Gln Phe Asp Lys Ala Val Ala Val Val Ala
 325 330 335
 His Gln Gln Leu Ser Glu Gly Glu His Tyr Trp Glu Val Asp Val Gly
 340 345 350
 Asp Lys Pro Arg Trp Ala Leu Gly Val Ile Ala Ala Glu Ala Pro Arg
 355 360 365
 Arg Gly Arg Leu His Ala Val Pro Ser Gln Gly Leu Trp Leu Leu Gly
 370 375 380
 Leu Arg Glu Gly Lys Ile Leu Glu Ala His Val Glu Ala Lys Glu Pro
 385 390 395 400
 Arg Ala Leu Arg Ser Pro Glu Arg Arg Pro Thr Arg Ile Gly Leu Tyr
 405 410 415
 Leu Ser Phe Gly Asp Gly Val Leu Ser Phe Tyr Asp Ala Ser Asp Ala
 420 425 430
 Asp Ala Leu Val Pro Leu Phe Ala Phe His Glu Arg Leu Pro Arg Pro
 435 440 445
 Val Tyr Pro Phe Phe Asp Val Cys Trp His Asp Lys Gly Lys Asn Ala
 450 455 460
 Gln Pro Leu Leu Leu Val Gly Pro Glu Gly Ala Glu Ala
 465 470 475

<210> 565

<211> 505

<212> PRT

<213> Homo sapiens

<400> 565

Met Ala Val Ala Leu Asp Ser Gln Ile Asp Ala Pro Leu Glu Val Glu

1 5 10 15

Gly Cys Leu Ile Met Lys Val Glu Lys Asp Pro Glu Trp Ala Ser Glu

20 25 30

Pro Ile Leu Glu Gly Ser Asp Ser Ser Glu Thr Phe Arg Lys Cys Phe

35 40 45

Arg Gln Phe Cys Tyr Glu Asp Val Thr Gly Pro His Glu Ala Phe Ser

50 55 60

Lys Leu Trp Glu Leu Cys Cys Arg Trp Leu Lys Pro Glu Met Arg Ser

65 70 75 80

Lys Glu Gln Ile Leu Glu Leu Leu Val Ile Glu Gln Phe Leu Thr Ile

85 90 95

Leu Pro Glu Lys Ile Gln Ala Trp Ala Gln Lys Gln Cys Pro Gln Ser

100 105 110

Gly Glu Glu Ala Val Ala Leu Val Val His Leu Glu Lys Glu Thr Gly

115 120 125

Arg Leu Arg Gln Gln Val Ser Ser Pro Val His Arg Glu Lys His Ser

130 135 140

Pro Leu Gly Ala Ala Trp Glu Val Ala Asp Phe Gln Pro Glu Gln Val

145 150 155 160

Glu Thr Gln Pro Arg Ala Val Ser Arg Glu Glu Pro Gly Ser Leu His

165 170 175

Ser Gly His Gln Glu Gln Leu Asn Arg Lys Arg Glu Arg Arg Pro Leu
 180 185 190
 Pro Lys Asn Ala Arg Pro Ser Pro Trp Val Pro Ala Leu Ala Asp Glu
 195 200 205
 Trp Asn Thr Leu Asp Gln Glu Val Thr Thr Arg Leu Pro Ala Gly
 210 215 220
 Ser Gln Glu Pro Val Lys Asp Val His Val Ala Arg Gly Phe Ser Tyr
 225 230 235 240
 Arg Lys Ser Val His Gln Ile Pro Ala Gln Arg Asp Leu Tyr Arg Asp
 245 250 255
 Phe Arg Lys Glu Asn Val Gly Asn Val Val Ser Leu Gly Ser Ala Val
 260 265 270
 Ser Thr Ser Asn Lys Ile Thr Arg Leu Glu Gln Arg Lys Glu Pro Trp
 275 280 285
 Thr Leu Gly Leu His Ser Ser Asn Lys Arg Ser Ile Leu Arg Ser Asn
 290 295 300
 Tyr Val Lys Glu Lys Ser Val His Ala Ile Gln Val Pro Ala Arg Ser
 305 310 315 320
 Ala Gly Lys Thr Trp Arg Glu Gln Gln Gln Trp Gly Leu Glu Asp Glu
 325 330 335
 Lys Ile Ala Gly Val His Trp Ser Tyr Glu Glu Thr Lys Thr Phe Leu
 340 345 350
 Ala Ile Leu Lys Glu Ser Arg Phe Tyr Glu Thr Leu Gln Ala Cys Pro
 355 360 365
 Arg Asn Ser Gln Val Tyr Gly Ala Val Ala Glu Trp Leu Arg Glu Cys
 370 375 380
 Gly Phe Leu Arg Thr Pro Glu Gln Cys Arg Thr Lys Phe Lys Ser Leu
 385 390 395 400
 Gln Lys Ser Tyr Arg Lys Val Arg Asn Gly His Met Leu Glu Pro Cys

405	410	415
Ala Phe Phe Glu Asp Met Asp Ala Leu Leu Asn Pro Ala Ala Arg Ala		
420	425	430
Pro Ser Thr Asp Lys Pro Lys Glu Met Ile Pro Val Pro Arg Leu Lys		
435	440	445
Arg Ile Ala Ile Ser Ala Lys Glu His Ile Ser Leu Val Glu Glu Glu		
450	455	460
Glu Ala Ala Glu Asp Ser Asp Asp Asp Glu Ile Gly Ile Glu Phe Ile		
465	470	475
Arg Lys Ser Glu Ile His Gly Ala Pro Val Leu Phe Gln Asn Leu Ser		
485	490	495
Gly Lys Asn Cys Ala Leu Phe Leu Trp		
500	505	

<210> 566

<211> 133

<212> PRT

<213> Homo sapiens

<400> 566

Met Pro Pro Leu Ala Arg Ser Pro Arg Ala Ser Ile Val Ala Leu Arg		
1	5	10
Lys Met Ile Thr Ser Phe Leu Ala Leu Trp Trp His Val Cys Val Cys		
20	25	30
Ile Cys Ile Tyr Thr His Ile Tyr Ile Asn Thr Gln Thr His Ile Tyr		
35	40	45
Thr Asn Thr Arg Ile His Phe Arg Pro Gln Phe Leu Ala His Asn Ser		
50	55	60

His Ser Pro Cys Tyr Thr Leu Leu Leu Gln His Trp Val Cys Gln Ala
 65 70 75 80
 Ser Gly Asp Asn His Ser Asn Leu Leu Pro Phe Leu Leu Pro Ala Gln
 85 90 95
 Asp Arg Thr Leu Ile Phe Pro Thr Phe Leu Met Val Gly His Lys Thr
 100 105 110
 His Ser Arg Asp Gly Pro Thr Pro Tyr Pro Ala Arg Arg Asn Ala Ala
 115 120 125
 Val Met Lys Leu Pro
 130

<210> 567
 <211> 502
 <212> PRT
 <213> Homo sapiens

<400> 567
 Met Val Gln Tyr His Gly Ala Glu Ala Ala Gln Arg Phe Ile Leu Thr
 1 5 10 15
 Val Met Asn Met Val Tyr Asn Met Phe Gln His Gln Ser Leu Gly Ile
 20 25 30
 Lys Ile Asn Ile Gln Val Thr Lys Leu Val Leu Arg Gln Arg Pro
 35 40 45
 Ala Lys Leu Ser Ile Gly His His Gly Glu Arg Ser Leu Glu Ser Phe
 50 55 60
 Cys His Trp Gln Asn Glu Glu Tyr Gly Gly Ala Arg Tyr Leu Gly Asn
 65 70 75 80
 Asn Gln Val Pro Gly Gly Lys Asp Asp Pro Pro Leu Val Asp Ala Ala

85	90	95
Val Phe Val Thr Arg Thr Asp Phe Cys Val His Lys Asp Glu Pro Cys		
100	105	110
Asp Thr Val Gly Ile Ala Tyr Leu Gly Gly Val Cys Ser Ala Lys Arg		
115	120	125
Lys Cys Val Leu Ala Glu Asp Asn Gly Leu Asn Leu Ala Phe Thr Ile		
130	135	140
Ala His Glu Leu Gly His Asn Leu Gly Met Asn His Asp Asp Asp His		
145	150	155
Ser Ser Cys Ala Gly Arg Ser His Ile Met Ser Gly Glu Trp Val Lys		
165	170	175
Gly Arg Asn Pro Ser Asp Leu Ser Trp Ser Ser Cys Ser Arg Asp Asp		
180	185	190
Leu Glu Asn Phe Leu Lys Ser Lys Val Ser Thr Cys Leu Leu Val Thr		
195	200	205
Asp Pro Arg Ser Gln His Thr Val Arg Leu Pro His Lys Leu Pro Gly		
210	215	220
Met His Tyr Ser Ala Asn Glu Gln Cys Gln Ile Leu Phe Gly Met Asn		
225	230	235
Ala Thr Phe Cys Arg Asn Met Glu His Leu Met Cys Ala Gly Leu Trp		
245	250	255
Cys Leu Val Glu Gly Asp Thr Ser Cys Lys Thr Lys Leu Asp Pro Pro		
260	265	270
Leu Asp Gly Thr Glu Cys Gly Ala Asp Lys Trp Cys Arg Ala Gly Glu		
275	280	285
Cys Val Ser Lys Thr Pro Ile Pro Glu His Val Asp Gly Asp Trp Ser		
290	295	300
Pro Trp Gly Ala Trp Ser Met Cys Ser Arg Thr Cys Gly Thr Gly Ala		
305	310	315
		320

Arg Phe Arg Gln Arg Lys Cys Asp Asn Pro Pro Pro Gly Pro Gly
 325 330 335
 Thr His Cys Pro Gly Ala Ser Val Glu His Ala Val Cys Glu Asn Leu
 340 345 350
 Pro Cys Pro Lys Gly Leu Pro Ser Phe Arg Asp Gln Gln Cys Gln Ala
 355 360 365
 His Asp Arg Leu Ser Pro Lys Lys Gly Leu Leu Thr Ala Val Val
 370 375 380
 Val Asp Asp Lys Pro Cys Glu Leu Tyr Cys Ser Pro Leu Gly Lys Glu
 385 390 395 400
 Ser Pro Leu Leu Val Ala Asp Arg Val Leu Asp Gly Thr Pro Cys Gly
 405 410 415
 Pro Tyr Glu Thr Asp Leu Cys Val His Gly Lys Cys Gln Lys Ile Gly
 420 425 430
 Cys Asp Gly Ile Ile Gly Ser Ala Ala Lys Glu Asp Arg Cys Gly Val
 435 440 445
 Cys Ser Gly Asp Gly Lys Thr Cys His Leu Ala Lys Gly Asp Phe Ser
 450 455 460
 His Ala Arg Gly Thr Gly Tyr Ile Glu Ala Ala Val Ile Pro Ala Gly
 465 470 475 480
 Ala Arg Arg Ile Arg Val Val Glu Asp Lys Pro Ala His Ser Phe Leu
 485 490 495
 Gly Lys Thr Gln Met Thr
 500

<210> 568

<211> 356

<212> PRT

<213> Homo sapiens

<400> 568

Met Val Ile Lys Gln Met Leu Ile Arg Asp Pro Phe Pro Ser Leu Ser

1 5 10 15

Leu Ala Gln Ile Ala Met Asp Arg Met Lys Lys Ile Lys Arg Gln Leu

20 25 30

Ser Met Thr Leu Arg Gly Gly Arg Gly Ile Asp Lys Thr Asn Gly Ala

35 40 45

Pro Glu Gln Ile Gly Leu Asp Glu Ser Gly Gly Gly Gly Ser Asp

50 55 60

Pro Gly Glu Ala Pro Thr Arg Ala Ala Pro Gly Glu Leu Arg Ser Ala

65 70 75 80

Arg Gly Pro Leu Ser Ser Ala Pro Glu Ile Val His Glu Asp Leu

85 90 95

Gly Glu Ser Asp Gln Ala Ser Ala Thr Ser Ser

100 105 110

Ser Pro Val Arg Val Arg Met Arg Asn His Pro

115 120 125

Ile Ser Thr Glu Asp Ile Asn Lys Arg Leu Ser

130 135 140

Ile Arg Leu Pro Glu Gly Tyr Leu Glu Lys Leu Thr Leu Asn Ser Pro

145 150 155 160

Pro Leu Ser Arg Arg Leu Arg Arg Val Ser Leu

165 170 175

Phe Gly Lys Leu Glu Thr Tyr Ile Lys Leu Asp

180 185 190

Gly Thr Tyr Ala Thr Val Tyr Lys Gly Lys Ser

Asp Asn Leu Val Ala Leu Lys Glu Ile Arg Leu Glu His Glu Glu Gly
 210 215 220
 Ala Pro Cys Thr Ala Ile Arg Glu Val Ser Leu Leu Lys Asp Leu Lys
 225 230 235 240
 His Ala Asn Ile Val Thr Leu His Asp Ile Ile His Thr Glu Lys Ser
 245 250 255
 Leu Thr Leu Val Phe Glu Tyr Leu Asp Lys Asp Leu Lys Gln Tyr Leu
 260 265 270
 Asp Asp Cys Gly Asn Ile Ile Asn Met His Asn Val Lys Val Gly Val
 275 280 285
 Gly Gln Glu Ala Gly Ala Gln Gly Gly Pro His Ser Pro Thr Pro Thr
 290 295 300
 His Lys Ser Pro Arg Asn Gly Leu Phe Pro Leu Ala Phe Phe Ala Arg
 305 310 315 320
 Ser Pro Trp Arg Ala Leu Gly Pro Cys Pro Leu Leu Cys Asp Lys Ala
 325 330 335
 Leu Gly Leu Val Ser Val Phe Gly Arg Gly Ala Val Pro Ala Gly Gly
 340 345 350
 Arg Ala Ser Gly
 355

<210> 569

<211> 126

<212> PRT

<213> Homo sapiens

<400> 569

Met Met Ile Thr Ala His Tyr Ser Leu Asp Phe Thr Gly Ser Gly Asp

1	5	10	15
Phe Pro Thr Ser Ala Ser Arg Val Ala Gly Thr Thr Gly Thr His His			
20	25	30	
His Thr Gln Leu Ile Phe Cys Ile Phe Ser Arg Gly Arg Val Leu Pro			
35	40	45	
Cys Cys Pro Gly Trp Ser Arg Thr Pro Gly Leu Lys Gln Ser Ala His			
50	55	60	
Leu Gly Leu Pro Lys Cys Trp Ile Thr Gly Met Ser Arg Cys Ala Gln			
65	70	75	80
Pro Lys Ile Ile Phe Ile Leu Phe Ile Gly Ser Ser Phe Ile Ala Leu			
85	90	95	
Glu Ile Gln Ala Ala Arg Tyr Cys Asp Trp Cys Ile Trp Thr Tyr Leu			
100	105	110	
Trp Ser Lys Thr Gly Thr His Gln Ile Val Ala Leu Ala Asn			
115	120	125	

<210> 570

<211> 141

<212> PRT

<213> Homo sapiens

<400> 570

1	5	10	15
Met Leu Leu Trp Thr Leu Gln Tyr Lys Cys Leu Thr Lys Ser Leu Leu			
20	25	30	
Leu Ile Leu Trp Gly Ile Tyr Ile Lys Val Glu Leu Leu Asp His Leu			
35	40	45	
Val Val Leu His Phe Thr Phe Phe Arg Asp Cys His Ile Val Phe His			

Ser Asp Cys Thr Ile Leu Tyr Ser Leu Arg Gln Tyr Ala Arg Val Leu
 50 55 60
 Ile Ser Pro Tyr Ser His Gln His Leu Phe Ser Val Leu Arg Ile Ile
 65 70 75 80
 Ala Ile Leu Arg Gly Val Met Trp Tyr Leu Ile Glu Val Ser Ile Cys
 85 90 95
 Ile Ser Leu Met Ile Ser Asp Val Glu Cys Phe Phe Met Tyr Phe Leu
 100 105 110
 Ala Ile Cys Ile Ser Pro Leu Lys Lys Tyr Gln Tyr Gln Val Ile Cys
 115 120 125
 Ser Cys Leu Ile Glu Leu Leu Cys Cys Gly Gly Phe Tyr
 130 135 140

<210> 571

<211> 152

<212> PRT

<213> Homo sapiens

<400> 571

Met Gly Phe His Tyr Val Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser
 1 5 10 15
 Gly Asp Pro Leu Ala Ser Ala Phe Gln Ser Ala Gly Ile Ile Gly Val
 20 25 30
 Ser His Arg Thr Trp Gly Gly Tyr Cys Leu Lys Lys Lys Ser Pro Asp
 35 40 45
 Ser Asp Pro Leu Ser Thr Trp Arg Thr Ser Thr Gly Arg Lys Gln Met
 50 55 60
 Leu Gln Ile Phe Lys Tyr Pro Asp Gly Phe Gly Ser Gln Gly Glu Arg

65	70	75	80
Asp Leu Thr Ser Val Tyr His Pro Thr Leu Ser Thr Lys Val Thr Ile			
85	90		95
Asn Thr Lys Ser Ile Ala Trp Ala Thr Gly Lys Lys Ala Phe Ile Cys			
100	105		110
Ile Asn Val Cys Val Tyr Ile His Cys Phe Phe Phe Lys Arg Leu			
115	120		125
Gly Leu Pro Leu Ser Pro Arg Leu Glu His Ser Gly Thr Ile Ile Ala			
130	135		140
His Cys Ser Leu Gln Arg Cys Gly			
145	150		

<210> 572
 <211> 168
 <212> PRT
 <213> Homo sapiens

<400> 572			
Met Tyr Pro Ser Asn Lys Lys Lys Val Trp Arg Glu Glu Lys Glu			
1	5	10	15
Arg Leu Leu Lys Met Thr Leu Glu Glu Arg Arg Lys Glu Tyr Leu Arg			
20	25		30
Asp Tyr Ile Pro Leu Asn Ser Ile Leu Ser Trp Lys Glu Glu Met Lys			
35	40		45
Gly Lys Gly Gln Asn Asp Glu Glu Asn Ile Gln Glu Thr Ser Gln Val			
50	55		60
Lys Lys Ser Leu Thr Glu Lys Val Ser Leu Tyr Arg Gly Asp Ile Thr			
65	70	75	80

Leu Leu Glu Val Asp Ala Ile Val Asn Ala Ala Asn Ala Ser Leu Leu
 85 90 95
 Gly Gly Gly Gly Val Asp Gly Cys Ile His Arg Ala Ala Gly Pro Cys
 100 105 110
 Leu Leu Ala Glu Cys Arg Asn Leu Asn Gly Cys Asp Thr Gly His Ala
 115 120 125
 Lys Ile Thr Cys Gly Tyr Asp Leu Pro Ala Lys Tyr Val Ile His Thr
 130 135 140
 Val Gly Pro Ile Ala Arg Ala Ile Leu Met Val Pro Thr Arg Lys Thr
 145 150 155 160
 Leu Gln Ile Ala Ile Asn His Leu
 165

<210> 573

<211> 151

<212> PRT

<213> Homo sapiens

<400> 573

Met Gly Leu Gly Gly Val Ser Arg Glu Ala Gly Leu Leu Leu Ser
 1 5 10 15
 Ser Pro Cys Pro Asp Pro Ser Val Cys Leu Ser Asp Lys Pro Val Pro
 20 25 30
 Glu Glu Ser Glu Gly Pro Gly Ser Pro Pro Pro Tyr Lys Met Ile Gln
 35 40 45
 Thr Ile Gly Leu Ser Val Gly Ala Ala Val Ala Tyr Ile Ile Ala Val
 50 55 60
 Leu Gly Leu Met Phe Tyr Cys Lys Lys Arg Cys Lys Ala Lys Arg Leu

65	70	75	80
Gln Lys Gln Pro Glu Gly Glu Pro Glu Met Glu Cys Leu Asn Gly			
85	90	95	
Gly Pro Leu Gln Asn Gly Gln Pro Ser Ala Glu Ile Gln Glu Glu Val			
100	105	110	
Ala Leu Thr Ser Leu Gly Ser Gly Pro Ala Ala Thr Asn Lys Arg His			
115	120	125	
Ser Thr Ser Asp Lys Met His Phe Pro Arg Ser Ser Leu Gln Pro Ile			
130	135	140	
Thr Thr Leu Gly Met Leu Pro			
145	150		

<210> 574

<211> 182

<212> PRT

<213> Homo sapiens

<400> 574

1	5	10	15
Met Leu Pro Thr Ala Ala Gly Phe Ser Ile Trp Gly Gln Val Gly Ala			
20	25	30	
Ala Arg Glu Ala Pro Arg Cys Gln Thr Lys Ile Ser Ser Cys Ser Cys			
35	40	45	
Pro Thr Ser Ser Val Ser Ala Ala His Gly Pro Gly Pro Asn Glu Arg			
50	55	60	
Ala Arg Gly Leu Gly Leu Pro Asp Pro Ala Leu Ser Pro Arg Val			
65	70	75	80
Pro Phe Gln Gly Tyr Ala Arg Ile Val Phe Ala Ile Ile Ser Phe Tyr			

Phe Met Pro Cys Cys Pro Leu Thr Ala Ser Ser Phe Tyr Leu Leu Ser
 85 90 95
 Gly Leu Leu Asp Ala Phe Asp Gly His Ala Ala Arg Ala Leu Asn Gln
 100 105 110
 Gly Thr Arg Phe Gly Ala Met Leu Asp Met Leu Thr Asp Arg Cys Ser
 115 120 125
 Thr Met Cys Leu Leu Val Asn Leu Ala Leu Leu Tyr Pro Gly Ala Thr
 130 135 140
 Leu Phe Phe Gln Ile Ser Met Ser Leu Asp Val Ala Ser His Trp Leu
 145 150 155 160
 His Leu His Arg Ser Ala Ala Ile Leu Gly Ala Trp Ala Thr Trp Arg
 165 170 175
 His Tyr Ser Gly Val Gly
 180

<210> 575

<211> 258

<212> PRT

<213> Homo sapiens

<400> 575

Met Gly Thr Leu Thr Phe His Leu Lys Ser Ser Phe Pro Gln Val Leu
 1 5 10 15
 Arg His Val Asn Gly Gln Asp Gln Ile Val Pro Gly Leu Tyr Ala Cys
 20 25 30
 Gly Glu Ala Ala Cys Ala Ser Val His Gly Ala Asn Arg Leu Gly Ala
 35 40 45
 Asn Ser Leu Leu Asp Leu Val Ala Phe Gly Arg Ala Cys Ala Pro Ser

50	55	60
Ile Glu Glu Ser Cys Arg Pro Gly Asp Lys Val Pro Pro Ile Lys Pro		
65	70	75
Asn Ala Gly Glu Glu Ser Val Met Asn Leu Asp Lys Leu Arg Phe Ala		80
85	90	95
Asp Gly Ser Ile Arg Thr Ser Glu Leu Arg Leu Ser Met Gln Lys Ser		
100	105	110
Met Gln Asn His Ala Ala Val Phe Arg Val Gly Ser Val Leu Gln Glu		
115	120	125
Gly Cys Gly Lys Ile Ser Lys Leu Tyr Gly Asp Leu Lys His Leu Lys		
130	135	140
Thr Phe Asp Arg Gly Met Val Trp Asn Thr Asp Leu Val Glu Thr Leu		
145	150	155
Glu Leu Gln Asn Leu Met Leu Cys Ala Leu Gln Thr Ile Tyr Gly Ala		160
165	170	175
Glu Ala Arg Lys Glu Ser Arg Gly Ala His Ala Arg Glu Asp Tyr Lys		
180	185	190
Val Arg Ile Asp Glu Tyr Asp Tyr Ser Lys Pro Ile Gln Gly Gln Gln		
195	200	205
Lys Lys Pro Phe Glu Glu His Trp Arg Lys His Thr Leu Ser Tyr Val		
210	215	220
Asp Val Gly Thr Gly Lys Val Thr Leu Glu Tyr Arg Pro Val Ile Asp		
225	230	235
Lys Thr Leu Asn Glu Ala Asp Cys Ala Thr Val Pro Pro Ala Ile Arg		240
245	250	255
Ser Tyr		

<210> 576

<211> 149

<212> PRT

<213> Homo sapiens

<400> 576

Met Tyr Met Glu Pro Ser Ala Arg Ser Ala Gly Tyr Ser Pro Gln Gln

1

5

10

15

Lys Arg Leu Ser Lys Thr Arg Ile Pro Arg Leu Gln Ser Leu Thr Asp

20

25

30

Gln Ala Ala Leu Trp Gly Thr Thr Cys Asp Gln Val Asn Ala Lys Gln

35

40

45

Gly Pro Lys Pro Ser Pro Gly His Arg Leu Arg Arg Asn Leu Pro Gly

50

55

60

Glu Lys Trp Glu Ile Asp Phe Thr Lys Val Lys Pro His Gln Ala Gly

65

70

75

80

Tyr Lys Tyr Leu Leu Val Leu Val Asp Thr Phe Ser Gly Trp Thr Glu

85

90

95

Ala Phe Ala Thr Lys Asn Glu Thr Ala Asn Leu Val Val Lys Phe Leu

100

105

110

Leu Asn Glu Ile Ile Pro Arg Tyr Gly Leu Pro Ala Ala Ile Gly Ser

115

120

125

Asp Asn Gly Pro Ala Phe Thr Ser Ser Ile Val Leu Ser Val Ser Lys

130

135

140

Ala Leu Asn Ile Gln

145

<210> 577

<211> 602

<212> PRT

<213> Homo sapiens

<400> 577

Met Glu Ser Gln Ala Thr Ser Ala Ser Ile Asn Asn Ser Asn Pro Ser

1	5	10	15
---	---	----	----

Thr Ser Glu Gln Ala Ser Asp Thr Ala Ser Ala Val Thr Ser Ser Gln

20	25	30
----	----	----

Pro Ser Thr Val Ser Glu Thr Ser Ala Thr Leu Thr Ser Asn Ser Thr

35	40	45
----	----	----

Thr Gly Thr Ser Ile Gly Asp Asp Ser Arg Arg Thr Thr Ser Ser Ala

50	55	60
----	----	----

Val Thr Glu Thr Gly Pro Pro Ala Met Pro Arg Leu Pro Ser Cys Cys

65	70	75	80
----	----	----	----

Pro Gln His Ser Pro Cys Gly Gly Ser Ser Gln Asn His His Ala Leu

85	90	95
----	----	----

Gly His Pro His Thr Ser Cys Phe Gln Gln His Gly His His Phe Gln

100	105	110
-----	-----	-----

His His His His His His Thr Pro His Pro Ala Val Pro Val Ser

115	120	125
-----	-----	-----

Pro Ser Phe Ser Asp Pro Ala Cys Pro Val Glu Arg Pro Pro Gln Val

130	135	140
-----	-----	-----

Gln Ala Pro Cys Gly Ala Asn Ser Ser Ser Gly Thr Ser Tyr His Glu

145	150	155	160
-----	-----	-----	-----

Gln Gln Ala Leu Pro Val Asp Leu Ser Asn Ser Gly Ile Arg Ser His

165	170	175
-----	-----	-----

Gly Ser Gly Ser Phe His Gly Ala Ser Ala Phe Asp Pro Cys Cys Pro

180	185	190
-----	-----	-----

Val Ser Ser Ser Arg Ala Ala Ile Phe Gly His Gln Ala Ala Ala Ala
 195 200 205
 Ala Pro Ser Gln Pro Leu Ser Ser Ile Asp Gly Tyr Gly Ser Ser Met
 210 215 220
 Val Ala Gln Pro Gln Pro Gln Pro Pro Pro Gln Pro Ser Leu Ser Ser
 225 230 235 240
 Cys Arg His Tyr Met Pro Pro Pro Tyr Ala Ser Leu Thr Arg Pro Leu
 245 250 255
 His His Gln Ala Ser Ala Cys Pro His Ser His Gly Asn Pro Pro Pro
 260 265 270
 Gln Thr Gln Pro Pro Pro Gln Val Asp Tyr Val Ile Pro His Pro Val
 275 280 285
 His Ala Phe His Ser Gln Ile Ser Ser His Ala Thr Ser His Pro Val
 290 295 300
 Ala Pro Pro Pro Pro Thr His Leu Ala Ser Thr Ala Ala Pro Ile Pro
 305 310 315 320
 Gln His Leu Pro Pro Thr His Gln Pro Ile Ser His His Ile Pro Ala
 325 330 335
 Thr Ala Pro Pro Ala Gln Arg Leu His Pro His Glu Val Met Gln Arg
 340 345 350
 Met Glu Val Gln Arg Arg Arg Met Met Gln His Pro Thr Gly Leu Phe
 355 360 365
 Val Phe Cys Val Ser Arg Arg Ala His Glu Arg Pro Pro His Pro
 370 375 380
 His Arg Met His Pro Asn Tyr Gly His Gly His His Ile His Val Pro
 385 390 395 400
 Gln Thr Met Ser Ser His Pro Arg Gln Ala Pro Glu Arg Ser Ala Trp
 405 410 415
 Glu Leu Gly Ile Glu Ala Gly Val Thr Ala Ala Thr Tyr Thr Pro Gly

420	425	430
Ala Leu His Pro His Leu Ala His Tyr His Ala Pro Pro Arg Leu His		
435	440	445
His Leu Gln Leu Gly Ala Leu Pro Leu Met Val Pro Asp Met Ala Gly		
450	455	460
Tyr Pro His Ile Arg Tyr Ile Ser Ser Gly Leu Asp Gly Thr Ser Phe		
465	470	475
Arg Gly Pro Phe Arg Gly Asn Phe Glu Glu Leu Ile His Leu Glu Glu		
485	490	495
Arg Leu Gly Asn Val Asn Arg Gly Ala Ser Gln Gly Thr Ile Glu Arg		
500	505	510
Cys Thr Tyr Pro His Lys Tyr Lys Lys Val Thr Thr Asp Trp Phe Ser		
515	520	525
Gln Arg Lys Leu His Cys Lys Gln Asp Gly Glu Glu Gly Thr Glu Glu		
530	535	540
Asp Thr Glu Glu Lys Cys Thr Ile Cys Leu Ser Ile Leu Glu Glu Gly		
545	550	555
Glu Asp Val Arg Arg Leu Pro Cys Met His Leu Phe His Gln Val Cys		
565	570	575
Val Asp Gln Trp Leu Ile Thr Asn Lys Lys Cys Pro Ile Cys Arg Val		
580	585	590
Asp Ile Glu Ala Gln Leu Pro Ser Glu Ser		
595	600	

<210> 578

<211> 116

<212> PRT

<213> Homo sapiens

<400> 578

Met Val Ser Gly Met Gly Met Gly Asn Arg Asp Thr Asn Pro Asn Gly
 1 5 10 15
 Lys Pro Leu Ala Lys Gln Pro Pro Glu Phe Val Leu Ile Val Tyr Ser
 20 25 30
 Gln Ser Leu Ala Thr Ala His Thr Leu Phe Phe Ser Tyr Lys Gln Lys
 35 40 45
 Glu Leu Ser Leu Ser Ala Met Asn Pro Ala Ile Pro Arg Lys Lys Ala
 50 55 60
 Asn Ala Leu Ala Ser Ser Pro Val Arg Ala Thr His Ser Ile Ser Thr
 65 70 75 80
 Phe Cys Met Leu Lys Leu Cys His Arg Arg Arg Ala Ser Ala His Asp
 85 90 95
 Gln Phe Phe Phe Trp Ser Ile Gly Ser Phe Cys Leu Arg Ile Phe Val
 100 105 110
 Cys Val Tyr Leu
 115

<210> 579

<211> 376

<212> PRT

<213> Homo sapiens

<400> 579

Met Ala Asp Ser Arg Arg Val Ile Ile Ala Ser Trp Tyr Arg Thr Phe
 1 5 10 15
 Met Gly Ile Val Asn Leu Phe Gly Leu Glu Thr Lys Thr Cys Trp Asn

20	25	30
Val Thr Arg Ile Glu Pro Leu Asn Glu Val Gln Ser Cys Glu Gly Leu		
35	40	45
Arg Asp Pro Ala Cys Phe Tyr Val Gly Val Ile Phe Ile Leu Asn Gly		
50	55	60
Leu Met Met Gly Leu Phe Phe Ile Tyr Gly Thr Tyr Leu Ser Gly Thr		
65	70	75
65	70	75
Glu Leu Gly Gly Leu Ile Thr Val Leu Cys Phe Phe Asn His Gly		
85	90	95
Glu Ala Thr Cys Val Met Trp Thr Pro Pro Leu Arg Glu Ser Phe Ser		
100	105	110
Tyr Pro Phe Leu Val Leu Gln Met Tyr Val Leu Thr Leu Ile Leu Arg		
115	120	125
Thr Ser Ser Asn Asp Arg Arg Pro Phe Ile Ala Leu Cys Leu Ser Asn		
130	135	140
Val Ala Phe Met Leu Pro Trp Gln Phe Ala Gln Phe Ile Leu Phe Thr		
145	150	155
145	150	155
Gln Ile Ala Ser Leu Phe Pro Met Tyr Val Val Gly Tyr Ile Glu Pro		
165	170	175
Ser Lys Phe Gln Lys Ile Ile Tyr Met Asn Met Ile Ser Val Thr Leu		
180	185	190
Ser Phe Ile Leu Met Phe Gly Asn Ser Met Tyr Leu Ser Ser Tyr Tyr		
195	200	205
Ser Ser Ser Leu Leu Met Thr Trp Ala Ile Ile Leu Lys Arg Asn Glu		
210	215	220
Ile Gln Lys Leu Gly Val Ser Lys Leu Asn Cys Trp Leu Ile Gln Gly		
225	230	235
225	230	235
Ser Ala Trp Trp Cys Gly Thr Ile Ile Leu Lys Phe Leu Thr Ser Lys		
245	250	255
245	250	255

Ile Leu Gly Val Ser Asp His Ile Cys Leu Ser Asp Leu Ile Ala Ala
 260 265 270
 Gly Thr Leu Arg Tyr Thr Asp Phe Asp Thr Leu Lys Tyr Thr Cys Ser
 275 280 285
 Pro Glu Phe Asp Phe Met Glu Lys Ala Thr Leu Leu Ile Tyr Thr Lys
 290 295 300
 Thr Leu Leu Leu Pro Val Val Met Val Ile Thr Cys Phe Ile Phe Lys
 305 310 315 320
 Lys Thr Val Gly Asp Ile Ser Arg Val Leu Ala Thr Asn Val Tyr Leu
 325 330 335
 Arg Cys Cys Leu Cys Arg Cys His Ala Tyr Asn Gly Lys Cys Gln Ala
 340 345 350
 Val Tyr Thr Ser Ser His Cys Glu Ser Ser Thr Leu Arg Arg Cys Arg
 355 360 365
 Leu Glu Ala Trp Leu Gln His Ala
 370 375

<210> 580

<211> 109

<212> PRT

<213> Homo sapiens

<400> 580

Met Tyr Pro Ala Leu Leu Val Pro Ser Ser Ser Pro Ser Ser Val Phe
 1 5 10 15
 Gly Val Pro Glu Thr Gly Phe Ser Gln Trp Pro Gly Pro Gln Gly Asn
 20 25 30
 Cys Arg Val Ile Gln Ser Gly Ser Ala Ser Leu Gln Gly Pro Leu Pro

35	40	45
Gly Arg Ala Ser Trp His Pro Ala Ile Gly Gly Pro Asp Thr Pro Ala		
50	55	60
Arg Asp Pro Ala Thr Gln Glu Val Pro Thr Pro Ser Gln Ser Asp Pro		
65	70	75
Gly Pro Arg Ala Asp Arg Ser Pro Pro Leu Lys Arg Leu Leu Pro Leu		
85	90	95
Tyr Pro Thr Pro Arg Asp Ser Phe His Ser Gly Ile Ser		
100	105	

<210> 581

<211> 363

<212> PRT

<213> Homo sapiens

<400> 581

Met Pro Val Arg Thr Leu Phe Pro Glu Ser Trp Leu Trp Arg Lys Phe		
1	5	10
Thr Leu Pro Lys Ser Lys Ser Gly Ile Ser His Tyr Pro Ile Ser Val		
20	25	30
Lys Val Pro Asp Ser Ile Thr Thr Trp Gln Phe Val Val Val Ser Leu		
35	40	45
Lys Ala Gly Gln Gly Leu Cys Val Ser Asp Pro Phe Glu Leu Thr Val		
50	55	60
Met Lys Ser Phe Phe Val Asp Leu Lys Leu Pro Ser Ser Val Ile Arg		
65	70	75
Asn Glu Gln Val Gln Ile Gln Ala Met Leu Tyr Asn Phe Arg Asp Arg		
85	90	95

Gln Ala Lys Val Arg Val Glu Phe Pro His Lys Glu Thr Leu Cys Ser
 100 105 110
 Ala Ser Lys Pro Gly Ala Pro Ser His Gln Ala Gly Val Gln Ile Gln
 115 120 125
 Gln Thr Ser Tyr Ser Ile Val Leu Glu Pro Gln Gly Gln Thr Gln Thr
 130 135 140
 Lys Leu Val Pro Arg Gln Glu Phe Leu Asn Met Val Pro Asp Thr Glu
 145 150 155 160
 Ala Glu Val Phe Ile Ser Val Gln Gly Tyr Thr Gln Met Leu Thr His
 165 170 175
 Arg Ser Ser Asp Gly Thr Tyr His Thr Ser Lys Gly Asn Pro Gly Ser
 180 185 190
 Thr Trp Leu Thr Ser Tyr Val Phe Arg Val Phe Ala Leu Ala Tyr Ser
 195 200 205
 Met Met Thr Thr Gln Val Leu Ser Leu Ser Ser Leu Cys Asp Met Ala
 210 215 220
 Asn Trp Ile Ile Asp Arg Gln Ala Glu Asp Gly His Phe Leu Glu
 225 230 235 240
 Lys Gly Pro Val Val Met Thr Ser Met Gln Asp Gly Tyr Gln Gly Ser
 245 250 255
 Glu Glu Asp Val Ser Leu Thr Ala Leu Val Leu Ile Ala Leu Asn Glu
 260 265 270
 Gly Lys Glu Leu Cys Arg Gln Lys Asn Leu Met Ala Ser Ile Glu Arg
 275 280 285
 Ala Arg Gly Phe Leu Glu Arg Lys Leu Pro Asp Ile Gln Thr Thr Phe
 290 295 300
 Ala Val Ala Ile Ala Ser Tyr Ala Leu Ala Asn Ser Ser Gln
 305 310 315 320
 Ala Asn Asp Cys Leu Asp Ser Phe Ala Ser Pro Ser Gly Cys Gly Met

325 330 335

Leu Leu Asn Gln Pro Gln Ser Trp Ser Gly Glu Gly Val Ile Ser Asn

340 345 350

Pro Ala Met Cys Tyr Ser Ser Leu Ser Val Ser

355 360

<210> 582

<211> 359

<212> PRT

<213> Homo sapiens

<400> 582

Met Pro Pro Thr Ser Ser Thr Pro Ser Leu Ser Arg Pro Gly Leu Gly

1 5 10 15

Gln Ala Gly Lys Pro Asp Thr Gly Ser His Pro Pro Pro Thr Ile Ser

20 25 30

Thr Ser Ile Phe Leu Ser Cys Phe Pro Thr Ile Pro Leu Ser Arg Pro

35 40 45

Arg Thr Thr Gly Pro Ser His Ser Tyr Gln Ser Ile Ser His Pro Arg

50 55 60

Ser Cys Arg Asp Val Pro Asp Asp Ile Gln Pro Ile Thr Ser Leu Pro

65 70 75 80

Gly Val Ala Arg Tyr Gly Val Lys Arg Leu Glu Glu Met Leu Arg Pro

85 90 95

Leu Val Glu Glu Gly Leu Arg Cys Val Leu Ile Phe Gly Val Pro Ser

100 105 110

Arg Val Pro Lys Asp Glu Arg Gly Ser Ala Ala Asp Ser Glu Glu Ser

115 120 125

Pro Ala Ile Glu Ala Ile His Leu Leu Arg Thr Phe Pro Asn Leu
 130 135 140
 Leu Val Ala Cys Asp Val Cys Leu Cys Pro Tyr Thr Ser His Gly His
 145 150 155 160
 Cys Gly Leu Leu Ser Glu Asn Gly Ala Phe Arg Ala Glu Glu Ser Arg
 165 170 175
 Gln Arg Leu Ala Glu Val Ala Leu Ala Tyr Ala Lys Ala Gly Cys Gln
 180 185 190
 Val Val Ala Pro Ser Asp Met Met Asp Gly Arg Val Glu Ala Ile Lys
 195 200 205
 Glu Ala Leu Met Ala His Gly Leu Gly Asn Arg Val Ser Val Met Ser
 210 215 220
 Tyr Ser Ala Lys Phe Ala Ser Cys Phe Tyr Gly Pro Phe Arg Asp Ala
 225 230 235 240
 Ala Lys Ser Ser Pro Ala Phe Gly Asp Arg Arg Cys Tyr Gln Leu Pro
 245 250 255
 Pro Gly Ala Arg Gly Leu Ala Leu Arg Ala Val Asp Arg Asp Val Arg
 260 265 270
 Glu Gly Ala Asp Met Leu Met Val Lys Pro Gly Met Leu Tyr Leu Asp
 275 280 285
 Ile Val Arg Glu Val Lys Asp Lys His Pro Asp Leu Pro Leu Ala Val
 290 295 300
 Tyr His Val Ser Gly Glu Phe Ala Met Leu Trp His Gly Ala Gln Ala
 305 310 315 320
 Gly Ala Phe Asp Leu Lys Ala Ala Val Leu Glu Ala Met Thr Ala Phe
 325 330 335
 Arg Arg Ala Gly Ala Asp Ile Ile Thr Tyr Tyr Thr Pro Gln Leu
 340 345 350
 Leu Gln Trp Leu Lys Glu Glu

355

<210> 583

<211> 508

<212> PRT

<213> Homo sapiens

<400> 583

Met	Met	Trp	Gly	Gly	Gly	Leu	Asp	Leu	Cys	Pro	Met	Pro	Gly	Gln	Leu
1															15
Lys	Phe	Pro	Pro	Cys	Leu	Ser	Arg	Cys	Leu	Leu	Trp	Glu	Pro	Pro	Ser
20															30
Leu	Tyr	Leu	Thr	Gln	Pro	Thr	Ser	Ser	Leu	Ala	Glu	Pro	Gln	Ala	Leu
35															45
Ile	Cys	Met	Thr	Ser	Ser	Ser	Gly	Leu	Phe	Ile	Gln	Asp	Asp	Asn	
50															
Met	Glu	Lys	Leu	Glu	Glu	Ile	Ile	Glu	Lys	Tyr	Pro	Arg	Ala	Phe	Pro
65															80
Phe	Trp	Ile	Gly	Pro	Phe	Gln	Ala	Phe	Phe	Cys	Ile	Tyr	Asp	Pro	Asp
85															95
Tyr	Ala	Lys	Thr	Leu	Leu	Ser	Arg	Thr	Asp	Pro	Lys	Ser	Gln	Tyr	Leu
100															
Gln	Lys	Phe	Ser	Pro	Pro	Leu	Leu	Gly	Lys	Gly	Leu	Ala	Ala	Leu	Asp
115															125
Gly	Pro	Lys	Trp	Phe	Gln	His	Arg	Arg	Leu	Leu	Thr	Pro	Gly	Phe	His
130															
Phe	Asn	Ile	Leu	Lys	Ala	Tyr	Ile	Glu	Val	Met	Ala	His	Ser	Val	Lys
145															160

Met Met Leu Asp Lys Trp Glu Lys Ile Cys Ser Thr Gln Asp Thr Ser
 165 170 175
 Val Glu Val Tyr Glu His Ile Asn Ser Met Ser Leu Asp Ile Val Met
 180 185 190
 Lys Cys Ala Phe Ser Lys Glu Thr Asn Cys Gln Thr Asn Ser Thr His
 195 200 205
 Asp Pro Tyr Ala Lys Ala Ile Phe Glu Leu Ser Lys Ile Ile Phe His
 210 215 220
 Arg Leu Tyr Ser Leu Leu Tyr His Ser Asp Ile Ile Phe Lys Leu Ser
 225 230 235 240
 Pro Gln Gly Tyr Arg Phe Gln Lys Leu Ser Arg Val Leu Asn Gln Tyr
 245 250 255
 Thr Asp Thr Ile Ile Gln Glu Arg Lys Lys Ser Leu Gln Ala Gly Val
 260 265 270
 Lys Gln Asp Asn Thr Pro Lys Arg Lys Tyr Gln Asp Phe Leu Asp Ile
 275 280 285
 Val Leu Ser Ala Lys Asp Glu Ser Gly Ser Ser Phe Ser Asp Ile Asp
 290 295 300
 Val His Ser Glu Val Ser Thr Phe Leu Leu Ala Gly His Asp Thr Leu
 305 310 315 320
 Ala Ala Ser Ile Ser Trp Ile Leu Tyr Cys Leu Ala Leu Asn Pro Glu
 325 330 335
 His Gln Glu Arg Cys Arg Glu Glu Val Arg Gly Ile Leu Gly Asp Gly
 340 345 350
 Ser Ser Ile Thr Trp Asp Gln Leu Gly Glu Met Ser Tyr Thr Thr Met
 355 360 365
 Cys Ile Lys Glu Thr Cys Arg Leu Ile Pro Ala Val Pro Ser Ile Ser
 370 375 380
 Arg Asp Leu Ser Lys Pro Leu Thr Phe Pro Asp Gly Cys Thr Leu Pro

385	390	395	400
Ala Gly Ile Thr Val Val Leu Ser Ile Trp Gly Leu His His Asn Pro			
405	410	415	
Ala Val Trp Lys Asn Pro Lys Val Phe Asp Pro Leu Arg Phe Ser Gln			
420	425	430	
Glu Asn Ser Asp Gln Arg His Pro Tyr Ala Tyr Leu Pro Phe Ser Ala			
435	440	445	
Gly Ser Arg Asn Cys Ile Gly Gln Glu Phe Ala Met Ile Glu Leu Lys			
450	455	460	
Val Thr Ile Ala Leu Ile Leu Leu His Phe Arg Val Thr Pro Asp Pro			
465	470	475	480
Thr Arg Pro Leu Thr Phe Pro Asn His Phe Ile Leu Lys Pro Lys Asn			
485	490	495	
Gly Met Tyr Leu His Leu Lys Leu Ser Glu Cys			
500	505		

<210> 584

<211> 1264

<212> PRT

<213> Homo sapiens

<400> 584

Met Cys Lys Lys Leu Thr Lys Leu Ala Lys Glu Asn Asp Ser Met Lys

1 5 10 15

Glu Glu Leu Leu Lys Tyr Arg Ser Leu Tyr Gly Asp Leu Asp Ser Ala

20 25 30

Leu Ser Ala Glu Glu Leu Ala Asp Ala Pro His Ser Arg Glu Thr Glu

35 40 45

Leu Lys Val His Leu Lys Leu Val Glu Glu Glu Ala Asn Leu Leu Ser
 50 55 60
 Arg Arg Ile Val Glu Leu Glu Val Glu Asn Arg Gly Leu Arg Ala Glu
 65 70 75 80
 Met Asp Asp Met Lys Asp His Gly Gly Cys Gly Gly Pro Glu Ala
 85 90 95
 Arg Leu Ala Phe Ser Ala Leu Gly Gly Glu Cys Gly Glu Ser Leu
 100 105 110
 Ala Glu Leu Arg Arg His Leu Gln Phe Val Glu Glu Glu Ala Glu Leu
 115 120 125
 Leu Arg Arg Ser Ser Ala Glu Leu Glu Asp Gln Asn Lys Leu Leu Leu
 130 135 140
 Asn Glu Leu Ala Lys Phe Arg Ser Glu His Glu Leu Asp Val Ala Leu
 145 150 155 160
 Ser Glu Asp Ser Cys Ser Val Leu Ser Glu Pro Ser Gln Glu Glu Leu
 165 170 175
 Ala Ala Ala Lys Leu Gln Ile Gly Glu Leu Ser Gly Lys Val Lys Lys
 180 185 190
 Leu Gln Tyr Glu Asn Arg Val Leu Leu Ser Asn Leu Gln Arg Cys Asp
 195 200 205
 Leu Ala Ser Cys Gln Ser Thr Arg Pro Met Leu Glu Thr Asp Ala Glu
 210 215 220
 Ala Gly Asp Ser Ala Gln Cys Val Pro Ala Pro Leu Gly Glu Thr His
 225 230 235 240
 Glu Ser His Ala Val Arg Leu Cys Arg Ala Arg Glu Ala Glu Val Leu
 245 250 255
 Pro Gly Leu Arg Glu Gln Ala Ala Leu Val Ser Lys Ala Ile Asp Val
 260 265 270
 Leu Val Ala Asp Ala Asn Gly Phe Thr Ala Gly Leu Arg Leu Cys Leu

275	280	285
Asp Asn Glu Cys Ala Asp Phe Arg Leu His Glu Ala Pro Asp Asn Ser		
290	295	300
Glu Gly Pro Arg Asp Thr Lys Leu Ile His Ala Ile Leu Val Arg Leu		
305	310	315
Ser Val Leu Gln Gln Glu Leu Asn Ala Phe Thr Arg Lys Ala Asp Ala		
325	330	335
Val Leu Gly Cys Ser Val Lys Glu Gln Gln Glu Ser Phe Ser Ser Leu		
340	345	350
Pro Pro Leu Gly Ser Gln Gly Leu Ser Lys Glu Ile Leu Leu Ala Lys		
355	360	365
Asp Leu Gly Ser Asp Phe Gln Pro Pro Asp Phe Arg Asp Leu Pro Glu		
370	375	380
Trp Glu Pro Arg Ile Arg Glu Ala Phe Arg Thr Gly Asp Leu Asp Ser		
385	390	395
Lys Pro Asp Pro Ser Arg Ser Phe Arg Pro Tyr Arg Ala Glu Asp Asn		
405	410	415
Asp Ser Tyr Ala Ser Glu Ile Lys Glu Leu Gln Leu Val Leu Ala Glu		
420	425	430
Ala His Asp Ser Leu Arg Gly Leu Gln Glu Gln Leu Ser Gln Glu Arg		
435	440	445
Gln Leu Arg Lys Glu Glu Ala Asp Asn Phe Asn Gln Lys Met Val Gln		
450	455	460
Leu Lys Glu Asp Gln Gln Arg Ala Leu Leu Arg Arg Glu Phe Glu Leu		
465	470	475
Gln Ser Leu Ser Leu Gln Arg Arg Leu Glu Gln Lys Phe Trp Ser Gln		
485	490	495
Glu Lys Asn Met Leu Val Gln Glu Ser Gln Gln Phe Lys His Asn Phe		
500	505	510

Leu Leu Leu Phe Met Lys Leu Arg Trp Phe Leu Lys Arg Trp Arg Gln
 515 520 525
 Gly Lys Val Leu Pro Ser Glu Gly Asp Asp Phe Leu Glu Val Asn Ser
 530 535 540
 Met Lys Val Leu Tyr Leu Leu Met Glu Glu Glu Glu Ile Asn Ala Gln
 545 550 555 560
 His Ser Asp Asn Lys Ala Cys Thr Gly Asp Ser Trp Thr Gln Asn Thr
 565 570 575
 Pro Asn Glu Tyr Ile Lys Thr Leu Ala Asp Met Lys Val Thr Leu Lys
 580 585 590
 Glu Leu Cys Trp Leu Leu Arg Asp Glu Arg Arg Gly Leu Thr Glu Leu
 595 600 605
 Gln Gln Gln Phe Ala Lys Ala Lys Ala Thr Trp Glu Thr Glu Arg Ala
 610 615 620
 Glu Leu Lys Gly His Thr Ser Gln Met Glu Leu Lys Thr Gly Lys Gly
 625 630 635 640
 Ala Gly Glu Arg Ala Gly Pro Asp Trp Lys Ala Ala Leu Gln Arg Glu
 645 650 655
 Arg Glu Glu Gln Gln His Leu Leu Ala Glu Ser Tyr Ser Ala Val Met
 660 665 670
 Glu Leu Thr Arg Gln Leu Gln Ile Ser Glu Arg Asn Trp Ser Gln Glu
 675 680 685
 Lys Leu Gln Leu Val Glu Arg Leu Gln Gly Glu Lys Gln Gln Val Glu
 690 695 700
 Gln Gln Val Lys Glu Leu Gln Asn Arg Leu Ser Gln Leu Gln Lys Ala
 705 710 715 720
 Ala Asp Pro Trp Val Leu Lys His Ser Glu Leu Glu Lys Gln Asp Asn
 725 730 735
 Ser Trp Lys Glu Thr Arg Ser Glu Lys Ile His Asp Lys Glu Ala Val

740	745	750
Ser Glu Val Glu Leu Gly Gly Asn Gly Leu Lys Arg Thr Lys Ser Val		
755	760	765
Ser Ser Met Ser Glu Phe Glu Ser Leu Leu Asp Cys Ser Pro Tyr Leu		
770	775	780
Ala Gly Gly Asp Ala Arg Gly Lys Lys Leu Pro Asn Asn Pro Ala Phe		
785	790	795
Gly Phe Val Ser Ser Glu Pro Gly Asp Pro Glu Lys Asp Thr Lys Glu		
805	810	815
Lys Pro Gly Leu Ser Ser Arg Asp Cys Asn His Leu Gly Ala Leu Ala		
820	825	830
Cys Gln Asp Pro Pro Gly Arg Gln Met Gln Arg Ser Tyr Thr Ala Pro		
835	840	845
Asp Lys Thr Gly Ile Arg Val Tyr Tyr Ser Pro Pro Val Ala Arg Arg		
850	855	860
Leu Gly Val Pro Val Val His Asp Lys Glu Gly Lys Ile Ile Ile Glu		
865	870	875
Pro Gly Phe Leu Phe Thr Thr Ala Lys Pro Lys Glu Ser Ala Glu Ala		
885	890	895
Asp Gly Leu Ala Glu Ser Ser Tyr Gly Arg Trp Leu Cys Asn Phe Ser		
900	905	910
Arg Gln Arg Leu Asp Gly Gly Ser Ala Gly Ser Pro Ser Ala Ala Gly		
915	920	925
Pro Gly Phe Pro Ala Ala Leu His Asp Phe Glu Met Ser Gly Asn Met		
930	935	940
Ser Asp Asp Met Lys Glu Ile Thr Asn Cys Val Arg Gln Ala Met Arg		
945	950	955
Ser Gly Ser Leu Glu Arg Lys Val Lys Ser Thr Ser Ser Gln Thr Val		
965	970	975

Gly Leu Ala Ser Val Gly Thr Gln Thr Ile Arg Thr Val Ser Val Gly
 980 985 990
 Leu Gln Thr Asp Pro Pro Arg Ser Ser Leu His Gly Lys Ala Trp Ser
 995 1000 1005
 Pro Arg Ser Ser Ser Leu Val Ser Val Arg Ser Lys Gln Ile Ser Ser
 1010 1015 1020
 Ser Leu Asp Lys Val His Ser Arg Ile Glu Arg Pro Cys Cys Ser Pro
 1025 1030 1035 1040
 Lys Tyr Gly Ser Pro Lys Leu Gln Arg Arg Ser Val Ser Lys Leu Asp
 1045 1050 1055
 Ser Ser Lys Asp Arg Ser Leu Trp Asn Leu His Gln Gly Lys Gln Asn
 1060 1065 1070
 Gly Ser Ala Trp Ala Arg Ser Thr Thr Arg Asp Ser Pro Val Leu
 1075 1080 1085
 Arg Asn Ile Asn Asp Gly Leu Ser Ser Leu Phe Ser Val Val Glu His
 1090 1095 1100
 Ser Gly Ser Thr Glu Ser Val Trp Lys Leu Gly Met Ser Glu Thr Arg
 1105 1110 1115 1120
 Ala Lys Pro Glu Pro Pro Lys Tyr Gly Ile Val Gln Glu Phe Phe Arg
 1125 1130 1135
 Asn Ala Cys Gly Arg Ala Pro Ser Pro Thr Ser Ser Ala Gly Glu Glu
 1140 1145 1150
 Gly Thr Lys Lys Pro Glu Pro Leu Ser Pro Ala Ser Tyr His Gln Pro
 1155 1160 1165
 Glu Gly Val Ala Arg Ile Leu Asn Lys Lys Ala Ala Lys Leu Gly Ser
 1170 1175 1180
 Ser Glu Glu Val Arg Leu Thr Met Leu Pro Gln Val Gly Lys Asp Gly
 1185 1190 1195 1200
 Val Leu Arg Asp Gly Asp Gly Ala Val Val Leu Pro Asn Glu Asp Ala

1205	1210	1215
Val Cys Asp Cys Ser Thr Gln Ser Leu Thr Ser Cys Phe Ala Arg Ser		
1220	1225	1230
Ser Arg Ser Ala Ile Arg His Ser Pro Ser Lys Cys Arg Leu His Pro		
1235	1240	1245
Ser Glu Ser Ser Trp Gly Gly Glu Arg Ala Leu Pro Pro Ser Glu		
1250	1255	1260

<210> 585

<211> 633

<212> PRT

<213> Homo sapiens

<400> 585

Met Glu Ser Gly Pro Lys Met Leu Ala Pro Val Cys Leu Val Glu Asn

1 5 10 15

Asn Asn Glu Gln Leu Leu Val Asn Gln Gln Ala Ile Gln Ile Leu Glu

20 25 30

Lys Ile Ser Gln Pro Val Val Val Ala Ile Val Gly Leu Tyr Arg

35 40 45

Thr Gly Lys Ser Tyr Leu Met Asn His Leu Ala Gly Gln Asn His Gly

50 55 60

Phe Pro Leu Gly Ser Thr Val Gln Ser Glu Thr Lys Gly Ile Trp Met

65 70 75 80

Trp Cys Val Pro His Pro Ser Lys Pro Asn His Thr Leu Val Leu Leu

85 90 95

Asp Thr Glu Gly Leu Gly Asp Val Glu Lys Gly Asp Pro Lys Asn Asp

100 105 110

Ser Trp Ile Phe Ala Leu Ala Val Leu Leu Cys Ser Thr Phe Val Tyr
 115 120 125
 Asn Ser Met Ser Thr Ile Asn His Gln Ala Leu Glu Gln Leu His Tyr
 130 135 140
 Val Thr Glu Leu Thr Glu Leu Ile Lys Ala Lys Ser Ser Pro Arg Pro
 145 150 155 160
 Asp Gly Val Glu Asp Ser Thr Glu Phe Val Ser Phe Phe Pro Asp Phe
 165 170 175
 Leu Trp Thr Val Arg Asp Phe Thr Leu Glu Leu Lys Leu Asn Gly His
 180 185 190
 Pro Ile Thr Glu Asp Glu Tyr Leu Glu Asn Ala Leu Lys Leu Ile Gln
 195 200 205
 Gly Asn Asn Pro Arg Val Gln Thr Ser Asn Phe Pro Arg Glu Cys Ile
 210 215 220
 Arg Arg Phe Phe Pro Lys Arg Lys Cys Phe Val Phe Asp Arg Pro Thr
 225 230 235 240
 Asn Asp Lys Asp Leu Leu Ala Asn Ile Glu Lys Val Ser Glu Lys Gln
 245 250 255
 Leu Asp Pro Lys Phe Gln Glu Gln Thr Asn Ile Phe Cys Ser Tyr Ile
 260 265 270
 Phe Thr His Ala Arg Thr Lys Thr Leu Arg Glu Gly Ile Thr Val Thr
 275 280 285
 Gly Asn Arg Leu Gly Thr Leu Ala Val Thr Tyr Val Glu Ala Ile Asn
 290 295 300
 Ser Gly Ala Val Pro Cys Leu Glu Asn Ala Val Ile Thr Leu Ala Gln
 305 310 315 320
 Arg Glu Asn Ser Ala Ala Val Gln Arg Ala Ala Asp Tyr Tyr Ser Gln
 325 330 335
 Gln Met Ala Gln Arg Val Lys Leu Pro Thr Asp Thr Leu Gln Glu Leu

340	345	350
Leu Asp Met His Ala Ala Cys Glu Arg Glu Ala Ile Ala Ile Phe Met		
355	360	365
Glu His Ser Phe Lys Asp Glu Asn Gln Glu Phe Gln Lys Lys Phe Met		
370	375	380
Glu Thr Thr Met Asn Lys Lys Gly Asp Phe Leu Leu Gln Asn Glu Glu		
385	390	395
Ser Ser Val Gln Tyr Cys Gln Ala Lys Leu Asn Glu Leu Ser Lys Gly		
405	410	415
Leu Met Glu Ser Ile Ser Ala Gly Ser Phe Ser Val Pro Gly Gly His		
420	425	430
Lys Leu Tyr Met Glu Thr Lys Glu Arg Ile Glu Gln Asp Tyr Trp Gln		
435	440	445
Val Pro Arg Lys Gly Val Lys Ala Lys Glu Val Phe Gln Arg Phe Leu		
450	455	460
Glu Ser Gln Met Val Ile Glu Glu Ser Ile Leu Gln Ser Asp Lys Ala		
465	470	475
Leu Thr Asp Arg Glu Lys Ala Val Ala Val Asp Arg Ala Lys Lys Glu		
485	490	495
Ala Ala Glu Lys Glu Gln Glu Leu Leu Lys Gln Lys Leu Gln Glu Gln		
500	505	510
Gln Gln Gln Met Glu Ala Gln Asp Lys Ser Arg Lys Glu Asn Ile Ala		
515	520	525
Gln Leu Lys Glu Lys Leu Gln Met Glu Arg Glu His Leu Leu Arg Glu		
530	535	540
Gln Ile Met Met Leu Glu His Thr Gln Lys Val Gln Asn Asp Trp Leu		
545	550	555
His Glu Gly Phe Lys Lys Tyr Glu Glu Met Asn Ala Glu Ile Ser		
565	570	575

Gln Phe Lys Arg Met Ile Asp Thr Thr Lys Asn Asp Asp Thr Pro Trp
 580 585 590
 Ile Ala Arg Thr Leu Asp Asn Leu Ala Asp Glu Leu Thr Ala Ile Leu
 595 600 605
 Ser Ala Pro Ala Lys Leu Ile Gly His Gly Val Lys Gly Val Ser Ser
 610 615 620
 Leu Phe Lys Lys His Lys Leu Pro Phe
 625 630

<210> 586

<211> 779

<212> PRT

<213> Homo sapiens

<400> 586

Met Leu Pro Cys His Ser Pro Ser Arg Ser Asp Gln Val Asn Leu Gly
 1 5 10 15
 Pro Ser Ile Asn Ser Lys Leu Leu Gly Met Ser Thr Gln Asn Tyr Ala
 20 25 30
 Leu Met Gln Val Ala Gly Gln Glu Gly Thr Phe Ser Leu Val Ala Leu
 35 40 45
 Pro His Val Ala Ser Ala Gln Pro Ile Gln Lys Pro Arg Met Ser Leu
 50 55 60
 Pro Glu Asn Leu Lys Leu Pro Ile Pro Arg Tyr Gln Pro Pro Arg Asn
 65 70 75 80
 Ser Lys Ala Ser Arg Lys Lys Pro Ile Leu Ile Phe Pro Lys Ser Gly
 85 90 95
 Cys Ser Lys Ala Pro Ala Gln Thr Gln Met Cys Pro Gln Met Ser Pro

100	105	110
Ser Pro Pro His His Pro Glu Leu Leu Tyr Lys Pro Ser Pro Phe Glu		
115	120	125
Glu Val Pro Ser Leu Glu Gln Ala Pro Ala Ser Ile Ser Thr Ala Ala		
130	135	140
Leu Thr Asn Gly Ser Asp His Gly Asp Leu Arg Pro Pro Val Thr Asn		
145	150	155
Thr His Gly Ser Leu Asn Pro Pro Ala Thr Pro Ala Ser Ser Thr Pro		
165	170	175
Glu Glu Pro Ala Lys Gln Asp Leu Thr Ala Leu Ser Gly Lys Ala His		
180	185	190
Phe Val Ser Lys Ile Thr Ser Ser Lys Pro Ser Ala Val Ala Ser Glu		
195	200	205
Lys Phe Lys Glu Gln Val Asp Leu Ala Lys Thr Met Thr Asn Leu Ser		
210	215	220
Pro Thr Ile Leu Gly Asn Ala Val Gln Leu Ile Ser Ser Val Pro Lys		
225	230	235
Gly Lys Leu Pro Ile Pro Pro Tyr Ser Arg Met Lys Thr Met Glu Val		
245	250	255
Tyr Lys Ile Lys Ser Asp Ala Asn Ile Ala Gly Phe Ser Leu Pro Gly		
260	265	270
Pro Lys Ala Asp Cys Asp Lys Ile Pro Ser Thr Thr Glu Gly Phe Asn		
275	280	285
Ala Ala Thr Lys Val Ala Ser Arg Leu Pro Val Pro Gln Val Ser Gln		
290	295	300
Gln Ser Ala Cys Glu Ser Ala Phe Cys Pro Pro Thr Lys Leu Asp Leu		
305	310	315
Asn His Lys Thr Lys Leu Asn Ser Gly Ala Ala Lys Arg Lys Gly Arg		
325	330	335

Lys Arg Lys Val Pro Asp Glu Ile Leu Ala Phe Gln Gly Lys Arg Arg
 340 345 350
 Lys Tyr Ile Ile Asn Lys Cys Arg Asp Gly Lys Glu Arg Val Lys Asn
 355 360 365
 Asp Pro Gln Glu Phe Arg Asp Gln Lys Leu Gly Thr Leu Lys Lys Tyr
 370 375 380
 Arg Ser Ile Met Pro Lys Pro Ile Met Val Ile Pro Thr Leu Ala Ser
 385 390 395 400
 Leu Ala Ser Pro Thr Thr Leu Gln Ser Gln Met Leu Gly Gly Leu Gly
 405 410 415
 Gln Asp Val Leu Leu Asn Asn Ser Leu Thr Pro Lys Tyr Leu Gly Cys
 420 425 430
 Lys Gln Asp Asn Ser Ser Pro Lys Pro Ser Ser Val Phe Arg Asn
 435 440 445
 Gly Phe Ser Gly Ile Lys Lys Pro Trp His Arg Cys His Val Cys Asn
 450 455 460
 His His Phe Gln Phe Lys Gln His Leu Arg Asp His Met Asn Thr His
 465 470 475 480
 Thr Asn Arg Arg Pro Tyr Ser Cys Arg Ile Cys Arg Lys Ser Tyr Val
 485 490 495
 Arg Pro Gly Ser Leu Ser Thr His Met Lys Leu His His Gly Glu Asn
 500 505 510
 Arg Leu Lys Lys Leu Met Cys Cys Glu Phe Cys Ala Lys Val Phe Gly
 515 520 525
 His Ile Arg Val Tyr Phe Gly His Leu Lys Glu Val His Arg Val Val
 530 535 540
 Ile Ser Thr Glu Pro Ala Pro Ser Glu Leu Gln Pro Gly Asp Ile Pro
 545 550 555 560
 Lys Asn Arg Asp Met Ser Val Arg Gly Met Glu Gly Ser Leu Glu Arg

565	570	575
Glu Asn Lys Ser Asn Leu Glu Glu Asp Phe Leu Leu Asn Gln Ala Asp		
580	585	590
Glu Val Lys Leu Gln Ile Lys Cys Gly Arg Cys Gln Ile Thr Ala Gln		
595	600	605
Ser Phe Ala Glu Ile Lys Phe His Leu Leu Gly Val His Gly Glu Glu		
610	615	620
Ile Glu Gly Arg Leu Gln Glu Gly Thr Phe Pro Gly Ser Lys Gly Thr		
625	630	635
Gln Glu Glu Leu Val Gln His Ala Ser Pro Asp Trp Lys Arg His Pro		
645	650	655
Glu Arg Gly Lys Pro Glu Lys Val His Ser Ser Ser Glu Glu Ser His		
660	665	670
Ala Cys Pro Arg Leu Lys Arg Gln Leu His Leu His Gln Asn Gly Val		
675	680	685
Glu Met Leu Met Glu Asn Glu Gly Pro Gln Ser Gly Thr Asn Lys Pro		
690	695	700
Arg Glu Thr Cys Gln Gly Pro Glu Cys Pro Gly Leu His Thr Phe Leu		
705	710	715
Leu Trp Ser His Ser Gly Phe Asn Cys Leu Leu Cys Ala Glu Met Leu		
725	730	735
Gly Arg Lys Glu Asp Leu Leu His His Trp Lys His Gln His Asn Cys		
740	745	750
Glu Asp Pro Ser Lys Leu Trp Ala Ile Leu Asn Thr Val Ser Asn Gln		
755	760	765
Gly Val Ile Glu Leu Ser Ser Glu Ala Glu Lys		
770	775	

<210> 587

<211> 353

<212> PRT

<213> Homo sapiens

<400> 587

Met Glu Phe Arg Lys Thr Met Asp Ile Asp His Thr Leu Asp Trp Gln

1

5

10

15

Pro Pro Glu Val Ile Gln Lys Tyr Met Pro Gly Gly Leu Cys Gly Tyr

20

25

30

Asp Arg Asp Gly Cys Pro Val Trp Tyr Asp Ile Thr Gly Pro Leu Asp

35

40

45

Pro Lys Gly Leu Leu Phe Ser Val Thr Lys Gln Asp Leu Leu Lys Thr

50

55

60

Lys Met Arg Asp Cys Glu Arg Ile Leu His Glu Cys Asp Leu Gln Thr

65

70

75

80

Glu Arg Leu Gly Lys Lys Ile Glu Thr Ile Val Met Ile Phe Asp Cys

85

90

95

Glu Gly Leu Gly Leu Lys His Phe Trp Lys Pro Leu Val Glu Val Tyr

100

105

110

Gln Glu Phe Phe Gly Leu Leu Glu Glu Asn Tyr Pro Glu Thr Leu Lys

115

120

125

Phe Met Leu Ile Val Lys Ala Thr Lys Leu Phe Pro Val Gly Tyr Asn

130

135

140

Leu Met Lys Pro Phe Leu Ser Glu Asp Thr Arg Arg Lys Ile Ile Val

145

150

155

160

Leu Gly Asn Asn Trp Lys Glu Gly Leu Leu Lys Leu Ile Ser Pro Glu

165

170

175

Glu Leu Pro Ala Gln Phe Gly Gly Thr Leu Thr Asp Pro Asp Gly Asn

180	185	190
Pro Lys Cys Leu Thr Lys Ile Asn Tyr Gly Gly Glu Ile Pro Lys Ser		
195	200	205
Met Tyr Val Arg Asp Gln Val Lys Thr Gln Tyr Glu His Ser Val Gln		
210	215	220
Ile Asn Arg Gly Ser Ser His Gln Val Glu Tyr Glu Ile Leu Phe Pro		
225	230	235
Gly Cys Val Leu Arg Trp Gln Phe Ser Ser Asp Gly Ala Asp Ile Gly		
245	250	255
Phe Gly Val Phe Leu Lys Thr Lys Met Gly Glu Arg Gln Arg Ala Gly		
260	265	270
Glu Met Thr Glu Val Leu Pro Ser Gln Arg Tyr Asn Ala His Met Val		
275	280	285
Pro Glu Asp Gly Asn Leu Thr Cys Ser Glu Ala Gly Val Tyr Val Glu		
290	295	300
Ser Glu Ser Gly Lys Ser Cys Cys His Leu Pro Val Ile Ile Cys Ser		
305	310	315
His Glu Leu Gln Asn Ser His Ser Asn Ser Gln Val Met Ala Tyr Gln		
325	330	335
Met Val Arg Lys Cys Lys Leu Ser Arg Pro Leu Pro Leu Pro Ala Ser		
340	345	350
Asn		

<210> 588

<211> 606

<212> PRT

<213> Homo sapiens

<400> 588

Met Cys Leu Glu Lys Arg Tyr Leu Asp Val Leu Ser Asp Val Thr Gly
 1 5 10 15

Pro Gln Val Ser Cys Tyr Ile Thr Ala Pro Ser Tyr Val Leu Gln Gln
 20 25 30

Leu Glu Cys Arg Ile Ile Asn His Met Ser Ser Leu Ile Val Gly Asp
 35 40 45

Asn Glu Glu Leu Val Ser Asn Val Ile Thr Ile Glu Cys Ser Asp Lys
 50 55 60

Glu Lys Arg Val Pro Phe Pro Ile Gly Ile Ala Ile Pro Phe Thr Ala
 65 70 75 80

Arg Tyr Arg Gly Asn Tyr Arg Asp Ile Met Val Lys Val Cys Asp Ile
 85 90 95

Asn Leu Gln Ser Ser Tyr Leu Asn Pro Asn Ser Leu Glu Gly Met Lys
 100 105 110

Gly Gly Tyr Lys Gly Thr Cys Ala Ser Val Lys Val Tyr Lys Leu Gly
 115 120 125

Ile Phe Ser Val Val Ser Cys Leu Lys Glu Ser Phe Thr Val Thr
 130 135 140

Lys Lys Gly Leu Ala Leu Lys Ser Ser Met Asp Ser Arg Ile Ser Leu
 145 150 155 160

Asn Tyr Pro Pro Gly Val Phe Thr Ser Pro Val Leu Val Gln Leu Lys
 165 170 175

Ile Gln Pro Val Asp Pro Ala Leu Val Ala His Leu Lys Ala Gln Gln
 180 185 190

Asp Thr Phe Tyr Ser Val Gln Ser Thr Ser Pro Leu Ile His Ile Gln
 195 200 205

His Pro Ser Thr Tyr Pro Phe Gln Lys Pro Val Thr Leu Phe Leu Pro

210	215	220
Cys Ser Pro Tyr Leu Asp Lys Asn Asn Leu Gly Ser Glu Ile Asp His		
225	230	235
Lys Arg Arg Ala Ser Ala Thr Ile Asn Arg Ile Thr Pro Ser Tyr Phe		
245	250	255
Asn Arg Thr Lys Ile Ala Ser Ile Arg Lys Pro Arg Lys Asn Ala Ser		
260	265	270
Glu Cys Leu Lys Leu Leu Gly Phe Arg Ser Gln Asp Ser Gly Trp Cys		
275	280	285
Gly Leu Asp Asp Val Val Lys Thr Ile Gln Ser Gly Leu Val Ser Val		
290	295	300
Glu Leu Tyr Glu His Leu Glu Arg Phe Ile Val Leu His Leu Ser Ser		
305	310	315
Thr Met Asp Asn Ser His Leu Val Thr Phe Val Lys Ser Leu Glu Glu		
325	330	335
Ala Met Leu Ser Thr Thr Ala Cys Ile Val Leu Ser His Gln Lys Asp		
340	345	350
Asn Pro His Arg Ile Ala Val Leu Val Val Pro Ser Lys Asp Leu Ser		
355	360	365
Gln Val Leu Lys Asp Leu His Leu Glu Gly Phe Gly Gly Pro Pro Glu		
370	375	380
Pro Ser Arg His Phe Gln Val Arg Glu Gly Glu Gln Leu Leu Leu Arg		
385	390	395
Phe Thr Gly Asn Ile Phe Ala Ser Ser Asn Gly Lys Asp Tyr Gly Lys		
405	410	415
Asp Tyr Thr Leu Ile Phe His Leu Gln Arg Lys Pro Arg Leu Glu Leu		
420	425	430
Gln Ile Lys Glu Val Asp Glu Phe Gly Asn Tyr Ser Cys Pro His Tyr		
435	440	445

Lys Gly Thr Ile Val Val Tyr Lys Val Pro Lys Gly Lys Ile Val Pro
 450 455 460
 Asn Leu Asn Gln Ser Leu Val Ile Asn Glu Asn His Ser Gln Leu Pro
 465 470 475 480
 Ile Cys Lys Leu Pro Leu Lys Leu Pro Lys His Lys Lys Leu Ile Asn
 485 490 495
 His Pro Gln Ser Thr Lys Arg Val Ser Lys Asp Pro Val Glu Ala Leu
 500 505 510
 Trp Asp Asn Leu Leu His Trp Leu Ala Glu Glu Leu Ser Glu Glu Asn
 515 520 525
 Ala Glu Ser Leu Ser Ser Thr Leu Pro Leu Arg Arg Ser Thr Ile Gln
 530 535 540
 Leu Ile Lys Leu Lys Asn Pro Asp Asp Leu Thr Glu Gln Ile His Glu
 545 550 555 560
 Phe Leu Cys Phe Trp Lys Lys Ser Leu Pro Thr Phe Thr Asp Lys Leu
 565 570 575
 Arg Leu Leu Ala Arg His Leu Arg Lys Ile Gly Arg Ser Asp Leu Ala
 580 585 590
 Glu Glu Leu Lys Phe Lys Trp Glu Asn Lys Val Phe Thr Glu
 595 600 605

<210> 589

<211> 151

<212> PRT

<213> Homo sapiens

<400> 589

Met Ala Thr Ile Thr Met Gln Ala Tyr Ser Arg Gly Phe Leu Ala Arg

1	5	10	15
Arg Arg Tyr Arg Lys Met Leu Glu Glu His Lys Ala Val Ile Leu Gln			
20	25	30	
Lys Tyr Ala Arg Ala Trp Leu Ala Arg Arg Arg Phe Gln Ser Ile Arg			
35	40	45	
Arg Phe Val Leu Asn Ile Gln Leu Thr Tyr Arg Val Gln Arg Leu Gln			
50	55	60	
Lys Lys Leu Glu Asp Gln Asn Lys Glu Asn His Gly Leu Val Glu Lys			
65	70	75	80
Leu Thr Ser Leu Ala Ala Leu Arg Ala Gly Asp Val Glu Lys Ile Gln			
85	90	95	
Lys Leu Glu Ala Glu Leu Glu Lys Ala Ala Thr His Arg Arg Asn Tyr			
100	105	110	
Glu Glu Lys Gly Lys Arg Tyr Arg Asp Ala Val Glu Val Ser Cys			
115	120	125	
Gly Arg Val Arg Arg Asp Gly Asn Met Arg Thr Leu Cys Glu Lys Asp			
130	135	140	
Glu Arg Cys Gln Leu Phe Leu			
145	150		

<210> 590
<211> 731
<212> PRT
<213> Homo sapiens

<400> 590
Met Met Gln Ala Gln Glu Ser Leu Thr Leu Glu Asp Val Ala Val Asp

1	5	10	15
---	---	----	----

Phe Thr Trp Glu Glu Trp Gln Phe Leu Ser Pro Ala Gln Lys Asp Leu
 20 25 30
 Tyr Arg Asp Val Met Leu Glu Asn Tyr Ser Asn Leu Val Ala Val Gly
 35 40 45
 Tyr Gln Ala Ser Lys Pro Asp Ala Leu Ser Lys Leu Glu Arg Gly Glu
 50 55 60
 Glu Thr Cys Thr Thr Glu Asp Glu Ile Tyr Ser Arg Ile Cys Ser Glu
 65 70 75 80
 Ile Arg Lys Ile Asp Asp Pro Leu Gln His His Leu Gln Asn Gln Ser
 85 90 95
 Ile Gln Lys Ser Val Lys Gln Cys His Glu Gln Asn Met Phe Gly Asn
 100 105 110
 Ile Val Asn Gln Asn Lys Gly His Phe Leu Leu Lys Gln Asp Cys Asp
 115 120 125
 Thr Phe Asp Leu His Glu Lys Pro Leu Lys Ser Asn Leu Ser Phe Glu
 130 135 140
 Asn Gln Lys Arg Ser Ser Gly Leu Lys Asn Ser Ala Glu Phe Asn Arg
 145 150 155 160
 Asp Gly Lys Ser Leu Phe His Ala Asn His Lys Gln Phe Tyr Thr Glu
 165 170 175
 Met Lys Phe Pro Ala Ile Ala Lys Pro Ile Asn Lys Ser Gln Phe Ile
 180 185 190
 Lys Gln Gln Arg Thr His Asn Ile Glu Asn Ala His Val Cys Ser Glu
 195 200 205
 Cys Gly Lys Ala Phe Leu Lys Leu Ser Gln Phe Ile Asp His Gln Arg
 210 215 220
 Val His Thr Gly Glu Lys Pro His Val Cys Ser Met Cys Gly Lys Ala
 225 230 235 240
 Phe Ser Arg Lys Ser Arg Leu Met Asp His Gln Arg Thr His Thr Glu

245	250	255
Leu Lys His Tyr Glu Cys Thr Glu Cys Asp Lys Thr Phe Leu Lys Lys		
260	265	270
Ser Gln Leu Asn Ile His Gln Lys Thr His Met Gly Gly Lys Pro Tyr		
275	280	285
Thr Cys Ser Gln Cys Gly Lys Ala Phe Ile Lys Lys Cys Arg Leu Ile		
290	295	300
Tyr His Gln Arg Thr His Thr Gly Glu Lys Pro His Gly Cys Ser Val		
305	310	315
Cys Gly Lys Ala Phe Ser Thr Lys Phe Ser Leu Thr Thr His Gln Lys		
325	330	335
Thr His Thr Gly Glu Lys Pro Tyr Ile Cys Ser Glu Cys Gly Lys Gly		
340	345	350
Phe Ile Glu Lys Arg Arg Leu Thr Ala His His Arg Thr His Thr Gly		
355	360	365
Glu Lys Pro Phe Ile Cys Asn Lys Cys Gly Lys Gly Phe Thr Leu Lys		
370	375	380
Asn Ser Leu Ile Thr His Gln Gln Thr His Thr Gly Glu Lys Leu Tyr		
385	390	395
Thr Cys Ser Glu Cys Gly Lys Phe Ser Met Lys His Cys Leu Met		
405	410	415
Val His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu		
420	425	430
Cys Gly Lys Gly Phe Ala Leu Lys Ser Pro Leu Ile Arg His Gln Arg		
435	440	445
Thr His Thr Gly Glu Lys Pro Tyr Val Cys Thr Glu Cys Arg Lys Gly		
450	455	460
Phe Thr Met Lys Ser Asp Leu Ile Val His Gln Arg Thr His Thr Ala		
465	470	475
480		

Glu Lys Pro Tyr Ile Cys Asn Asp Cys Gly Lys Gly Phe Thr Val Lys
 485 490 495
 Ser Arg Leu Ile Val His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr
 500 505 510
 Val Cys Gly Glu Cys Gly Lys Gly Phe Pro Ala Lys Ile Arg Leu Met
 515 520 525
 Gly His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Ile Cys Asn Glu
 530 535 540
 Cys Gly Lys Gly Phe Thr Glu Lys Ser His Leu Asn Val His Arg Arg
 545 550 555 560
 Thr His Thr Gly Glu Lys Pro Tyr Val Cys Ser Glu Cys Gly Lys Asp
 565 570 575
 Leu Thr Gly Lys Ser Met Leu Ile Ala His Gln Arg Thr His Thr Gly
 580 585 590
 Glu Lys Pro Tyr Ile Cys Asn Glu Cys Gly Lys Gly Phe Thr Met Lys
 595 600 605
 Ser Thr Leu Ser Ile His Gln Gln Thr His Thr Gly Glu Lys Pro Tyr
 610 615 620
 Lys Cys Asn Glu Cys Asp Lys Thr Phe Arg Lys Lys Thr Cys Leu Ile
 625 630 635 640
 Gln His Gln Arg Phe His Thr Gly Lys Thr Ser Phe Ala Cys Thr Glu
 645 650 655
 Cys Gly Lys Phe Ser Leu Arg Lys Asn Asp Leu Ile Thr His Gln Arg
 660 665 670
 Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Ser Asp Cys Gly Lys Ala
 675 680 685
 Phe Thr Thr Lys Ser Gly Leu Asn Val His Gln Arg Lys His Thr Gly
 690 695 700
 Glu Arg Pro Tyr Gly Cys Ser Asp Cys Gly Lys Ala Phe Ala His Leu

705 710 715 720

Ser Ile Leu Val Lys His Arg Arg Ile His Arg .

725 730

<210> 591

<211> 1186

<212> PRT

<213> Homo sapiens

<400> 591

Met Tyr Gln Ala Leu Glu Gln Gly Gly Met Thr Phe Gly Trp Val Cys

1 5 10 15

Trp Met Ile Leu Phe Asp Ser Ser Leu Tyr Phe Leu Cys Gly Trp Tyr

20 25 30

Leu Ser Asn Leu Ile Pro Gly Thr Phe Gly Leu Arg Lys Pro Trp Tyr

35 40 45

Phe Pro Phe Thr Ala Ser Tyr Trp Lys Ser Val Gly Phe Leu Val Glu

50 55 60

Lys Arg Gln Tyr Phe Leu Ser Ser Ser Leu Phe Phe Phe Asn Glu Asn

65 70 75 80

Phe Asp Asn Lys Gly Ser Ser Leu Gln Asn Arg Glu Gly Glu Leu Glu

85 90 95

Gly Ser Ala Pro Gly Val Thr Leu Val Ser Val Thr Lys Glu Tyr Glu

100 105 110

Gly His Lys Ala Val Val Gln Asp Leu Ser Leu Thr Phe Tyr Arg Asp

115 120 125

Gln Ile Thr Ala Leu Leu Gly Thr Asn Gly Ala Gly Lys Thr Thr Ile

130 135 140

Ile Ser Met Leu Thr Gly Leu His Pro Pro Thr Ser Gly Thr Ile Ile
 145 150 155 160
 Ile Asn Glu Lys Asn Leu Gln Thr Asp Leu Ser Arg Val Arg Met Glu
 165 170 175
 Leu Gly Val Cys Pro Gln Gln Asp Ile Leu Leu Asp Asn Leu Thr Val
 180 185 190
 Arg Glu His Leu Leu Phe Ala Ser Ile Lys Ala Pro Gln Trp Thr
 195 200 205
 Lys Lys Glu Leu His Gln Gln Val Asn Gln Thr Leu Gln Asp Val Asp
 210 215 220
 Leu Thr Gln His Gln His Lys Gln Thr Arg Ala Leu Ser Gly Gly Leu
 225 230 235 240
 Lys Arg Lys Leu Ser Leu Gly Ile Ala Phe Met Gly Met Ser Arg Thr
 245 250 255
 Val Val Leu Asp Glu Pro Thr Ser Gly Val Asp Pro Cys Ser Arg His
 260 265 270
 Ser Leu Trp Asp Ile Leu Leu Lys Tyr Arg Glu Gly Arg Thr Ile Ile
 275 280 285
 Phe Thr Thr His His Leu Asp Glu Ala Glu Ala Leu Ser Asp Arg Val
 290 295 300
 Ala Val Leu Gln His Gly Arg Leu Arg Cys Cys Gly Pro Pro Phe Cys
 305 310 315 320
 Leu Lys Glu Ala Tyr Gly Gln Gly Leu Arg Leu Thr Leu Thr Arg Gln
 325 330 335
 Pro Ser Val Leu Glu Ala His Asp Leu Lys Asp Met Ala Cys Val Thr
 340 345 350
 Ser Leu Ile Lys Ile Tyr Ile Pro Gln Ala Phe Leu Lys Asp Ser Ser
 355 360 365
 Gly Ser Glu Leu Thr Tyr Thr Ile Pro Lys Asp Thr Asp Lys Ala Cys

370	375	380
Leu Lys Gly Leu Phe Gln Ala Leu Asp Gly Asn Leu His Gln Leu His		
385	390	395
Leu Thr Gly Tyr Gly Ile Ser Asp Thr Thr Leu Glu Glu Val Phe Leu		
405	410	415
Met Leu Leu Gln Asp Ser Asn Lys Lys Ser His Ile Ala Leu Gly Thr		
420	425	430
Glu Ser Glu Leu Gln Asn His Arg Pro Thr Gly His Leu Ser Gly Tyr		
435	440	445
Cys Gly Ser Leu Ala Arg Pro Ala Thr Val Gln Gly Val Gln Leu Leu		
450	455	460
Arg Ala Gln Val Ala Ala Ile Leu Ala Arg Arg Leu Arg Arg Thr Leu		
465	470	475
Arg Ala Gly Lys Ser Thr Leu Ala Asp Leu Leu Leu Pro Val Leu Phe		
485	490	495
Val Ala Leu Ala Met Gly Leu Phe Met Val Arg Pro Leu Ala Thr Glu		
500	505	510
Tyr Pro Pro Leu Arg Leu Thr Pro Gly His Tyr Gln Arg Ala Glu Thr		
515	520	525
Tyr Phe Phe Ser Ser Gly Gly Asp Asn Leu Asp Leu Thr Arg Val Leu		
530	535	540
Leu Arg Lys Phe Arg Asp Gln Asp Leu Pro Cys Ala Asp Leu Asn Pro		
545	550	555
Arg Gln Lys Asn Ser Ser Cys Trp Arg Thr Asp Pro Phe Ser His Pro		
565	570	575
Glu Phe Gln Asp Ser Cys Gly Cys Leu Lys Arg Pro Asn Arg Ser Ala		
580	585	590
Ser Ala Pro Tyr Leu Thr Asn His Leu Gly His Thr Leu Leu Asn Leu		
595	600	605

Ser Gly Phe Asn Met Glu Glu Tyr Leu Leu Ala Pro Ser Glu Lys Pro
 610 615 620
 Arg Leu Gly Gly Trp Ser Phe Gly Leu Lys Ile Pro Ser Glu Ala Gly
 625 630 635 640
 Gly Ala Asn Gly Asn Ile Ser Lys Pro Pro Thr Leu Ala Lys Val Trp
 645 650 655
 Tyr Asn Gln Lys Gly Phe His Ser Leu Pro Ser Tyr Leu Asn His Leu
 660 665 670
 Asn Asn Leu Ile Leu Trp Gln His Leu Pro Pro Thr Val Asp Trp Arg
 675 680 685
 Gln Tyr Gly Ile Thr Leu Tyr Ser His Pro Tyr Gly Gly Ala Leu Leu
 690 695 700
 Asn Glu Asp Lys Ile Leu Glu Ser Ile Arg Gln Cys Gly Val Ala Leu
 705 710 715 720
 Cys Ile Val Leu Gly Phe Ser Ile Leu Ser Ala Ser Ile Gly Ser Ser
 725 730 735
 Val Val Arg Asp Arg Val Ile Gly Ala Lys Arg Leu Gln His Ile Ser
 740 745 750
 Gly Leu Gly Tyr Arg Met Tyr Trp Phe Thr Asn Phe Leu Tyr Asp Met
 755 760 765
 Leu Phe Tyr Leu Val Ser Val Cys Leu Cys Val Ala Val Ile Val Ala
 770 775 780
 Phe Gln Leu Thr Ala Phe Thr Phe Arg Lys Asn Leu Ala Ala Thr Ala
 785 790 795 800
 Leu Leu Leu Ser Leu Phe Gly Tyr Ala Thr Leu Pro Trp Met Tyr Leu
 805 810 815
 Met Ser Arg Ile Phe Ser Ser Ser Asp Val Ala Phe Ile Ser Tyr Val
 820 825 830
 Ser Leu Asn Phe Ile Phe Gly Leu Cys Thr Met Leu Ile Thr Ile Met

835	840	845
Pro Arg Leu Leu Ala Ile Ile Ser Lys Ala Lys Asn Leu Gln Asn Ile		
850	855	860
Tyr Asp Val Leu Lys Trp Val Phe Thr Ile Phe Pro Gln Phe Cys Leu		
865	870	875
Gly Gln Gly Leu Val Glu Leu Cys Tyr Asn Gln Thr Lys Tyr Asp Leu		
885	890	895
Thr His Asn Phe Gly Ile Asp Ser Tyr Val Ser Pro Phe Glu Met Asn		
900	905	910
Phe Leu Gly Trp Ile Phe Val Gln Leu Ala Ser Gln Gly Thr Val Leu		
915	920	925
Leu Leu Leu Arg Val Leu Leu His Trp Asp Leu Leu Arg Trp Pro Arg		
930	935	940
Gly His Ser Thr Leu Gln Gly Thr Val Lys Ser Ser Lys Asp Thr Asp		
945	950	955
Val Glu Lys Glu Glu Lys Arg Val Phe Glu Gly Arg Thr Asn Gly Asp		
965	970	975
Ile Leu Val Leu Tyr Asn Leu Ser Lys His Tyr Arg Arg Phe Phe Gln		
980	985	990
Asn Ile Ile Ala Val Gln Asp Ile Ser Leu Gly Ile Pro Lys Gly Glu		
995	1000	1005
Cys Phe Gly Leu Leu Gly Val Asn Gly Ala Gly Lys Ser Thr Thr Phe		
1010	1015	1020
Lys Met Leu Asn Gly Glu Val Ser Leu Thr Ser Gly His Ala Ile Ile		
1025	1030	1035
Arg Thr Pro Met Gly Asp Ala Val Asp Leu Ser Ser Ala Gly Thr Ala		
1045	1050	1055
Gly Val Leu Ile Gly Tyr Cys Pro Gln Gln Asp Ala Leu Asp Glu Leu		
1060	1065	1070

Leu Thr Gly Trp Glu His Leu Tyr Tyr Tyr Cys Ser Leu Arg Gly Ile
 1075 1080 1085
 Pro Arg Gln Cys Ile Pro Glu Val Ala Gly Asp Leu Ile Arg Arg Leu
 1090 1095 1100
 His Leu Glu Ala His Ala Asp Lys Pro Val Ala Thr Tyr Ser Gly Gly
 1105 1110 1115 1120
 Thr Lys Arg Lys Leu Ser Thr Ala Leu Ala Leu Val Gly Lys Pro Asp
 1125 1130 1135
 Ile Leu Leu Leu Asp Glu Pro Ser Ser Gly Met Asp Pro Cys Ser Lys
 1140 1145 1150
 Arg Tyr Leu Trp Gln Thr Ile Met Lys Glu Val Arg Glu Gly Cys Ala
 1155 1160 1165
 Ala Val Leu Thr Ser His Arg Phe Trp Tyr Gln Asp Asp Ala Gly Leu
 1170 1175 1180
 Ile Lys
 1185

<210> 592
 <211> 140
 <212> PRT
 <213> Homo sapiens

<400> 592
 Met Tyr Ile Phe Phe Phe Leu Lys Gln Met Ser Phe Asp Pro Asn
 1 5 10 15
 Leu Leu His Asn Asn Gly His Asn Gly Tyr Pro Asn Gly Thr Ser Ala
 20 25 30
 Ala Leu Arg Glu Thr Gly Val Ile Glu Lys Leu Leu Thr Ser Tyr Gly
 35 40 45

Phe Ile Gln Cys Ser Glu Arg Gln Ala Arg Leu Phe Phe His Cys Ser
 50 55 60
 Gln Tyr Asn Gly Asn Leu Gln Asp Leu Lys Val Gly Gly Asn Leu Ser
 65 70 75 80
 Val Leu Leu Cys Lys Asn Val Ile Thr Lys Phe Val Leu His Ile Asn
 85 90 95
 Leu Phe Met Ser Val Phe Gln Lys Val Leu Cys Lys Leu Lys His Phe
 100 105 110
 Gly Leu Leu Val Val Leu Phe Ser Glu Glu Tyr Leu Tyr Lys Pro Ala
 115 120 125
 Glu Ser Leu Lys Asp Tyr Ile Cys Ile Tyr Leu Gln
 130 135 140

<210> 593

<211> 177

<212> PRT

<213> Homo sapiens

<400> 593

Met Ser Ser Glu Thr Pro Thr Ser Arg Gln Leu Ser Glu Tyr Leu Lys
 1 5 10 15
 His Ala Lys Gly Arg Thr Arg Thr Ala Ile Arg Asn Gly Gln Val Trp
 20 25 30
 Glu Glu Ser Leu Lys Arg Leu Arg Gln Lys Ala Ser Leu Thr Asn Val
 35 40 45
 Thr Asp Pro Ser Leu Asp Leu Thr Ser Leu Ser Leu Glu Val Gly Cys
 50 55 60
 Gly Ala Pro Ala Pro Val Val Arg Cys Asp Pro Cys Ser Pro Tyr Arg

65	70	75	80
Thr Ile Thr Gly Asp Cys Asn Asn Arg Trp Arg Gly Leu Gly Cys Gly			
85	90		95
Gly Arg Pro Phe Gln Pro Leu Arg Pro Ala Leu Pro Arg Pro Leu Ser			
100	105	110	
Leu Gly His Ser Arg Gln Ile Cys His Cys Leu Ala His Leu Gly Trp			
115	120	125	
Arg Ser His Leu Pro His Leu Leu Lys Ile Ala Arg Leu Gln Pro Ser			
130	135	140	
Pro Ser Ser Pro Leu Cys Val Ser Gly Ser Gly Thr Phe Pro Arg Gly			
145	150	155	160
Gly Gly Ala Pro Arg Leu Gln Gly Val Gly Ala Val Gln Arg Pro Gln			
165	170	175	
Ile			

<210> 594

<211> 930

<212> PRT

<213> Homo sapiens

<400> 594

Met Ala Gly Ala Ala Ala Ala Val Ala Ala Gly Ala Ala Ala Gly Ala			
1	5	10	15
Ala Ala Ala Ala Val Ser Val Ala Ala Pro Gly Arg Ala Ser Ala Pro			
20	25	30	
Pro Pro Pro Pro Pro Val Tyr Cys Val Cys Arg Gln Pro Tyr Asp Val			
35	40	45	

Asn Arg Phe Met Ile Glu Cys Asp Ile Cys Lys Asp Trp Phe His Gly
 50 55 60
 Ser Cys Val Gly Val Glu Glu His His Ala Val Asp Ile Asp Leu Tyr
 65 70 75 80
 His Cys Pro Asn Cys Ala Val Leu His Gly Ser Ser Leu Met Lys Lys
 85 90 95
 Arg Arg Asn Trp His Arg His Asp Tyr Thr Glu Ile Asp Asp Gly Ser
 100 105 110
 Lys Pro Val Gln Ala Gly Thr Arg Thr Phe Ile Lys Glu Leu Arg Ser
 115 120 125
 Arg Val Phe Pro Ser Ala Asp Glu Ile Ile Lys Met His Gly Ser
 130 135 140
 Gln Leu Thr Gln Arg Tyr Leu Glu Lys His Gly Phe Asp Val Pro Ile
 145 150 155 160
 Met Val Pro Lys Leu Asp Asp Leu Gly Leu Arg Leu Pro Ser Pro Thr
 165 170 175
 Phe Ser Val Met Asp Val Glu Arg Tyr Val Gly Gly Asp Lys Val Ile
 180 185 190
 Asp Val Ile Asp Val Ala Arg Gln Ala Asp Ser Lys Met Thr Leu His
 195 200 205
 Asn Tyr Val Lys Tyr Phe Met Asn Pro Asn Arg Pro Lys Val Leu Asn
 210 215 220
 Val Ile Ser Leu Glu Phe Ser Asp Thr Lys Met Ser Glu Leu Val Glu
 225 230 235 240
 Val Pro Asp Ile Ala Lys Lys Leu Ser Trp Val Glu Asn Tyr Trp Pro
 245 250 255
 Asp Asp Ser Val Phe Pro Lys Pro Phe Val Gln Lys Tyr Cys Leu Met
 260 265 270
 Gly Val Gln Asp Ser Tyr Thr Asp Phe His Ile Asp Phe Gly Gly Thr

275	280	285
Ser Val Trp Tyr His Val Leu Trp Gly Glu Lys Ile Phe Tyr Leu Ile		
290	295	300
Lys Pro Thr Asp Glu Asn Leu Ala Arg Tyr Glu Ser Trp Ser Ser Ser		
305	310	315
Val Thr Gln Ser Glu Val Phe Phe Gly Asp Lys Val Asp Lys Cys Tyr		
325	330	335
Lys Cys Val Val Lys Gln Gly His Thr Leu Phe Val Pro Thr Gly Trp		
340	345	350
Ile His Ala Val Leu Thr Ser Gln Asp Cys Met Ala Phe Gly Gly Asn		
355	360	365
Phe Leu His Asn Leu Asn Ile Gly Met Gln Leu Arg Cys Tyr Glu Met		
370	375	380
Glu Lys Arg Leu Lys Thr Pro Asp Leu Phe Lys Phe Pro Phe Phe Glu		
385	390	395
Ala Ile Cys Trp Phe Val Ala Lys Asn Leu Leu Glu Thr Leu Lys Glu		
405	410	415
Leu Arg Glu Asp Gly Phe Gln Pro Gln Thr Tyr Leu Val Gln Gly Val		
420	425	430
Lys Ala Leu His Thr Ala Leu Lys Leu Trp Met Lys Lys Glu Leu Val		
435	440	445
Ser Glu His Ala Phe Glu Ile Pro Asp Asn Val Arg Pro Gly His Leu		
450	455	460
Ile Lys Glu Leu Ser Lys Val Ile Arg Ala Ile Glu Glu Glu Asn Gly		
465	470	475
Lys Pro Val Lys Ser Gln Gly Ile Pro Ile Val Cys Pro Val Ser Arg		
485	490	495
Ser Ser Asn Glu Ala Thr Ser Pro Tyr His Ser Arg Arg Lys Met Arg		
500	505	510

Lys Leu Arg Asp His Asn Val Arg Thr Pro Ser Asn Leu Asp Ile Leu
 515 520 525
 Glu Leu His Thr Arg Glu Val Leu Lys Arg Leu Glu Met Cys Pro Trp
 530 535 540
 Glu Glu Asp Ile Leu Ser Ser Lys Leu Asn Gly Lys Phe Asn Lys His
 545 550 555 560
 Leu Gln Pro Ser Ser Thr Val Pro Glu Trp Arg Ala Lys Asp Asn Asp
 565 570 575
 Leu Arg Leu Leu Leu Thr Asn Gly Arg Ile Ile Lys Asp Glu Arg Gln
 580 585 590
 Pro Phe Ala Asp Gln Ser Leu Tyr Thr Ala Asp Ser Glu Asn Glu Glu
 595 600 605
 Asp Lys Arg Arg Thr Lys Lys Ala Lys Met Lys Ile Glu Glu Ser Ser
 610 615 620
 Gly Val Glu Gly Val Glu His Glu Glu Ser Gln Lys Pro Leu Asn Gly
 625 630 635 640
 Phe Phe Thr Arg Val Lys Ser Glu Leu Arg Ser Arg Ser Ser Gly Tyr
 645 650 655
 Ser Asp Ile Ser Glu Ser Glu Asp Ser Gly Pro Glu Cys Thr Ala Leu
 660 665 670
 Lys Ser Ile Phe Thr Thr Glu Glu Ser Glu Ser Ser Gly Asp Glu Lys
 675 680 685
 Lys Gln Glu Ile Thr Ser Asn Phe Lys Glu Glu Ser Asn Val Met Arg
 690 695 700
 Asn Phe Leu Gln Lys Ser Gln Lys Pro Ser Arg Ser Glu Ile Pro Ile
 705 710 715 720
 Lys Arg Glu Cys Pro Thr Ser Thr Ser Thr Glu Glu Glu Ala Ile Gln
 725 730 735
 Gly Met Leu Ser Met Ala Gly Leu His Tyr Ser Thr Cys Leu Gln Arg

740	745	750
Gln Ile Gln Ser Thr Asp Cys Ser Gly Glu Arg Asn Ser Leu Gln Asp		
755	760	765
Pro Ser Ser Cys His Gly Ser Asn His Glu Val Arg Gln Leu Tyr Arg		
770	775	780
Tyr Asp Lys Pro Val Glu Cys Gly Tyr His Val Lys Thr Glu Asp Pro		
785	790	795
Asp Leu Arg Thr Ser Ser Trp Ile Lys Gln Phe Asp Thr Ser Arg Phe		
805	810	815
His Pro Gln Asp Leu Ser Arg Ser Gln Lys Cys Ile Arg Lys Glu Gly		
820	825	830
Ser Ser Glu Ile Ser Gln Arg Val Gln Ser Arg Asn Tyr Val Asp Ser		
835	840	845
Ser Gly Ser Ser Leu Gln Asn Gly Lys Tyr Met Gln Asn Ser Asn Leu		
850	855	860
Thr Ser Gly Ala Cys Gln Ile Ser Asn Gly Ser Leu Ser Pro Glu Arg		
865	870	875
Pro Val Gly Glu Thr Ser Phe Ser Val Pro Leu His Pro Thr Lys Arg		
885	890	895
Pro Ala Ser Asn Pro His Leu Ser Ala Thr Arg Gln Gln Lys Val Asn		
900	905	910
Val Gln Lys Lys Glu Trp Gln Gln Pro Asn Asn Val Leu Gly Arg Ser		
915	920	925
Leu Ser		
930		

<210> 595

<211> 755

<212> PRT

<213> Homo sapiens

<400> 595

Met Arg Lys Val Lys Lys Leu Arg Leu Asp Lys Glu Asn Thr Gly Ser
 1 5 10 15

Trp Arg Ser Phe Ser Leu Asn Ser Glu Gly Ala Glu Arg Met Ala Thr
 20 25 30

Ser Tyr Asp Phe His Ser Glu Ser Gly Leu Phe Leu Phe Gln Ala Ser
 35 40 45

Asn Ser Leu Phe His Cys Arg Asp Gly Gly Lys Asn Gly Phe Met Val
 50 55 60

Ser Pro Met Lys Pro Leu Glu Ile Lys Thr Gln Cys Ser Gly Pro Arg
 65 70 75 80

Met Asp Pro Lys Ile Cys Pro Ala Asp Pro Ala Phe Phe Ser Phe Ile
 85 90 95

Asn Asn Ser Asp Leu Trp Val Ala Asn Ile Glu Thr Gly Glu Glu Arg
 100 105 110

Arg Leu Thr Phe Cys His Gln Gly Leu Ser Asn Val Leu Asp Asp Pro
 115 120 125

Lys Ser Ala Gly Val Ala Thr Phe Val Ile Gln Glu Glu Phe Asp Arg
 130 135 140

Phe Thr Gly Tyr Trp Trp Cys Pro Thr Ala Ser Trp Glu Gly Ser Glu
 145 150 155 160

Gly Leu Lys Thr Leu Arg Ile Leu Tyr Glu Glu Val Asp Glu Ser Glu
 165 170 175

Val Glu Val Ile His Val Pro Ser Pro Ala Leu Glu Glu Arg Lys Thr
 180 185 190

Asp Ser Tyr Arg Tyr Pro Arg Thr Gly Ser Lys Asn Pro Lys Ile Ala

195	200	205
Leu Lys Leu Ala Glu Phe Gln Thr Asp Ser Gln Gly Lys Ile Val Ser		
210	215	220
Thr Gln Glu Lys Glu Leu Val Gln Pro Phe Ser Ser Leu Phe Pro Lys		
225	230	235
Val Glu Tyr Ile Ala Arg Ala Gly Trp Thr Arg Asp Gly Lys Tyr Ala		
245	250	255
Trp Ala Met Phe Leu Asp Arg Pro Gln Gln Trp Leu Gln Leu Val Leu		
260	265	270
Leu Pro Pro Ala Leu Phe Ile Pro Ser Thr Glu Asn Glu Glu Gln Arg		
275	280	285
Leu Ala Ser Ala Arg Ala Val Pro Arg Asn Val Gln Pro Tyr Val Val		
290	295	300
Tyr Glu Glu Val Thr Asn Val Trp Ile Asn Val His Asp Ile Phe Tyr		
305	310	315
Pro Phe Pro Gln Ser Glu Gly Glu Asp Glu Leu Cys Phe Leu Arg Ala		
325	330	335
Asn Glu Cys Lys Thr Gly Phe Cys His Leu Tyr Lys Val Thr Ala Val		
340	345	350
Leu Lys Ser Gln Gly Tyr Asp Trp Ser Glu Pro Phe Ser Pro Gly Glu		
355	360	365
Asp Glu Phe Lys Cys Pro Ile Lys Glu Glu Ile Ala Leu Thr Ser Gly		
370	375	380
Glu Trp Glu Val Leu Ala Arg His Gly Ser Lys Ile Trp Val Asn Glu		
385	390	395
Glu Thr Lys Leu Val Tyr Phe Gln Gly Thr Lys Asp Thr Pro Leu Glu		
405	410	415
His His Leu Tyr Val Val Ser Tyr Glu Ala Ala Gly Glu Ile Val Arg		
420	425	430

Leu Thr Thr Pro Gly Phe Ser His Ser Cys Ser Met Ser Gln Asn Phe
 435 440 445
 Asp Met Phe Val Ser His Tyr Ser Ser Val Ser Thr Pro Pro Cys Val
 450 455 460
 His Val Tyr Lys Leu Ser Gly Pro Asp Asp Asp Pro Leu His Lys Gln
 465 470 475 480
 Pro Arg Phe Trp Ala Ser Met Met Glu Ala Ala Ser Cys Pro Pro Asp
 485 490 495
 Tyr Val Pro Pro Glu Ile Phe His Phe His Thr Arg Ser Asp Val Arg
 500 505 510
 Leu Tyr Gly Met Ile Tyr Lys Pro His Ala Leu Gln Pro Gly Lys Lys
 515 520 525
 His Pro Thr Val Leu Phe Val Tyr Gly Pro Gln Val Gln Leu Val
 530 535 540
 Asn Asn Ser Phe Lys Gly Ile Lys Tyr Leu Arg Leu Asn Thr Leu Ala
 545 550 555 560
 Ser Leu Gly Tyr Ala Val Val Val Ile Asp Gly Arg Gly Ser Cys Gln
 565 570 575
 Arg Gly Leu Arg Phe Glu Gly Ala Leu Lys Asn Gln Met Gly Gln Val
 580 585 590
 Glu Ile Glu Asp Gln Val Glu Gly Pro Gln Phe Val Ala Glu Lys Tyr
 595 600 605
 Gly Phe Ile Asp Leu Ser Arg Val Ala Ile His Gly Trp Ser Tyr Gly
 610 615 620
 Gly Phe Leu Ser Leu Met Gly Leu Ile His Lys Pro Gln Val Phe Lys
 625 630 635 640
 Val Ala Ile Ala Gly Ala Pro Val Thr Val Trp Met Ala Tyr Asp Thr
 645 650 655
 Gly Tyr Thr Glu Arg Tyr Met Asp Val Pro Glu Asn Asn Gln His Gly

660	665	670
Tyr Glu Ala Gly Ser Val Ala Leu His Val Glu Lys Leu Pro Asn Glu		
675	680	685
Pro Asn Arg Leu Leu Ile Leu His Gly Phe Leu Asp Glu Asn Val His		
690	695	700
Phe Phe His Thr Asn Phe Leu Val Ser Gln Leu Ile Arg Ala Gly Lys		
705	710	715
Pro Tyr Gln Leu Gln Ile Tyr Pro Asn Glu Arg His Ser Ile Arg Cys		
725	730	735
Pro Glu Ser Gly Glu His Tyr Glu Val Thr Leu Leu His Phe Leu Gln		
740	745	750
Glu Tyr Leu		
755		

<210> 596

<211> 268

<212> PRT

<213> Homo sapiens

<400> 596

Met Ala Ala Ala Ile Thr Asp Met Ala Asp Leu Glu Glu Leu Ser Arg

1 5 10 15

Leu Ser Pro Leu Pro Pro Gly Ser Pro Gly Ser Ala Ala Arg Gly Arg

20 25 30

Ala Glu Pro Pro Glu Glu

35 40 45

Ala Glu Ala Glu Ala Val Ala Ala Leu Leu Leu Asn Gly Gly Ser Gly

50 55 60

Gly Gly Gly Gly Gly Gly Gly Val Gly Gly Glu Ala Glu
 65 70 75 80
 Thr Met Ser Glu Pro Ser Pro Glu Ser Ala Ser Gln Ala Gly Glu Asp
 85 90 95
 Glu Asp Glu Glu Glu Asp Asp Glu Glu Glu Asp Glu Ser Ser Ser
 100 105 110
 Ser Gly Gly Glu Glu Glu Ser Ser Ala Glu Ser Leu Val Gly Ser
 115 120 125
 Ser Gly Gly Ser Ser Ser Asp Glu Thr Arg Ser Leu Ser Pro Gly Ala
 130 135 140
 Ala Ser Ser Ser Ser Gly Asp Gly Asp Gly Lys Glu Gly Leu Glu Glu
 145 150 155 160
 Pro Lys Gly Pro Arg Gly Ser Gln Gly Gly Gly Gly Ser Ser
 165 170 175
 Ser Ser Ser Val Val Ser Ser Gly Gly Asp Glu Gly Tyr Gly Thr Gly
 180 185 190
 Gly Gly Gly Ser Ser Ala Thr Ser Gly Gly Arg Arg Gly Ser Leu Glu
 195 200 205
 Met Ser Ser Asp Gly Glu Pro Leu Ser Arg Met Asp Ser Glu Asp Ser
 210 215 220
 Ile Ser Ser Thr Ile Met Asp Val Asp Ser Thr Ile Ser Ser Gly Arg
 225 230 235 240
 Ser Thr Pro Ala Met Met Asn Gly Gln Gly Ser Thr Thr Ser Ser Ser
 245 250 255
 Lys Asn Ile Ala Tyr Asn Cys Cys Trp Asp Gln Cys
 260 265

<211> 160

<212> PRT

<213> Homo sapiens

<400> 597

Met Leu Gly Glu Arg Pro Leu Cys Leu Thr Pro Gly Ala Lys Leu Gly

1	5	10	15
---	---	----	----

Leu His His Trp Ile Ile Arg Cys Phe Gln Arg Arg Pro Ser Pro His

20	25	30
----	----	----

Pro Asp Gln Gly Asn Trp Asp Asp Val Gly Pro Leu Thr Leu Ser Asp

35	40	45
----	----	----

Met Gln Pro Gly Trp Arg Leu Gly Gln Pro Pro Cys Arg Ser Glu Ser

50	55	60
----	----	----

Phe Ser Pro Cys His Leu Lys Ser Lys Ser Leu Leu Thr Gln Ala Leu

65	70	75	80
----	----	----	----

Pro Gly Met Cys Ser Pro Ala Thr Glu Pro Glu Ala Ala Leu Leu Leu

85	90	95
----	----	----

Ser Pro Val Gly Thr Ala Phe Gln Thr Gln Asn Thr Glu Phe Thr Ala

100	105	110
-----	-----	-----

Ser Phe Gly Ile Phe Pro Asn Arg Leu Thr Val Pro Ile Ala Ser Asp

115	120	125
-----	-----	-----

Pro Phe Gln Tyr Ser Cys Thr Arg Asn Val Met Val Lys Asn Lys Lys

130	135	140
-----	-----	-----

Pro Pro Val Met Glu Gly Arg Asn Met Asn Gln Leu Lys Ala Phe His

145	150	155	160
-----	-----	-----	-----

<210> 598

<211> 411

<212> PRT

<213> Homo sapiens

<400> 598

Met Thr Glu Met Ser Glu Lys Glu Asn Glu Pro Asp Asp Ala Ala Thr
 1 5 10 15
 His Ser Pro Pro Gly Thr Val Ser Ala Leu Gln Glu Thr Lys Leu Gln
 20 25 30
 Arg Phe Lys Arg Ser Leu Ser Leu Lys Thr Ile Leu Arg Ser Lys Ser
 35 40 45
 Leu Glu Asn Phe Phe Leu Arg Ser Gly Ser Glu Leu Lys Cys Pro Thr
 50 55 60
 Glu Val Leu Leu Thr Pro Pro Thr Pro Leu Pro Pro Pro Ser Pro Pro
 65 70 75 80
 Pro Thr Ala Ser Asp Arg Gly Leu Ala Thr Pro Ser Pro Ser Pro Cys
 85 90 95
 Pro Val Pro Arg Pro Leu Ala Ala Leu Lys Pro Val Arg Leu His Ser
 100 105 110
 Phe Gln Glu His Val Phe Lys Arg Ala Ser Pro Cys Glu Leu Cys His
 115 120 125
 Gln Leu Ile Val Gly Asn Ser Lys Gln Gly Leu Arg Cys Lys Met Cys
 130 135 140
 Lys Val Ser Val His Leu Trp Cys Ser Glu Glu Ile Ser His Gln Gln
 145 150 155 160
 Cys Pro Gly Lys Thr Ser Thr Ser Phe Arg Arg Asn Phe Ser Ser Pro
 165 170 175
 Leu Leu Val His Glu Pro Pro Val Cys Ala Thr Ser Lys Glu Ser
 180 185 190
 Pro Pro Thr Gly Asp Ser Gly Lys Val Asp Pro Val Tyr Glu Thr Leu

195	200	205
Arg Tyr Gly Thr Ser Leu Ala Leu Met Asn Arg Ser Ser Phe Ser Ser		
210	215	220
Thr Ser Glu Ser Pro Thr Arg Ser Leu Ser Glu Arg Asp Glu Leu Thr		
225	230	235
Glu Asp Gly Glu Gly Ser Ile Arg Ser Ser Glu Glu Gly Pro Gly Asp		
245	250	255
Ser Ala Ser Pro Val Phe Thr Ala Pro Ala Glu Ser Glu Gly Pro Gly		
260	265	270
Pro Glu Glu Lys Ser Pro Gly Gln Gln Leu Pro Lys Ala Thr Leu Arg		
275	280	285
Lys Asp Val Gly Pro Met Tyr Ser Tyr Val Ala Leu Tyr Lys Phe Leu		
290	295	300
Pro Gln Glu Asn Asn Asp Leu Ala Leu Gln Pro Gly Asp Arg Ile Met		
305	310	315
Leu Val Asp Asp Ser Asn Glu Asp Trp Trp Lys Gly Lys Ile Gly Asp		
325	330	335
Arg Val Gly Phe Phe Pro Ala Asn Phe Val Gln Arg Val Arg Pro Gly		
340	345	350
Glu Asn Val Trp Arg Cys Cys Gln Pro Phe Ser Gly Asn Lys Glu Gln		
355	360	365
Gly Tyr Met Ser Leu Lys Glu Asn Gln Ile Cys Val Gly Val Gly Arg		
370	375	380
Ser Lys Asp Ala Asp Gly Phe Ile Arg Val Ser Ser Gly Lys Lys Arg		
385	390	395
Gly Leu Val Pro Val Asp Ala Leu Thr Glu Ile		
405	410	

<210> 599

<211> 129

<212> PRT

<213> Homo sapiens

<400> 599

Met Leu Ser Ala Gly Gly Cys Ile Leu Leu Pro Val His Ile Val Cys

1 5 10 15

Ala Trp Asp Gly His Glu Ser Gly Gly Arg Ala Gly Val Leu Ala Leu

20 25 30

Gly Tyr Phe Gly Glu Thr Ile Arg Phe Lys Glu Gly Asn Thr Phe Ser

35 40 45

Gly Pro Val Pro Gln Asn Thr Thr Ile Thr Arg Gly Arg His Leu Ala

50 55 60

Glu Leu Ser Pro Thr Gly Thr Ser Gly Pro Trp Phe Leu His Pro Gln

65 70 75 80

Ser Ala Ser Phe His Ser Arg Gln Asn Gln Gly Ile Phe Gln Gly Gln

85 90 95

Val Ser His Pro Leu Gly Ala Gly Ile Leu Ser His Ser Lys Thr Asn

100 105 110

Phe Gln Val Pro Gly Leu Leu Gly Asn Pro Lys Arg Leu Ser Pro Ala

115 120 125

Glu

<210> 600

<211> 156

<212> PRT

<213> Homo sapiens

<400> 600

Met Gln Thr Glu Asp Ile Arg Leu Glu Pro Asp Leu Tyr Glu Ala Cys

1 5 10 15

Lys Ser Asp Ile Lys Asn Phe Cys Ser Ala Val Gln Tyr Gly Asn Ala

20 25 30

Gln Ile Ile Glu Cys Leu Lys Glu Asn Lys Lys Gln Leu Ser Thr Arg

35 40 45

Cys His Gln Lys Val Phe Lys Leu Gln Glu Thr Glu Met Met Asp Pro

50 55 60

Glu Leu Asp Tyr Thr Leu Met Arg Val Cys Lys Gln Met Ile Lys Arg

65 70 75 80

Phe Cys Pro Glu Ala Asp Ser Lys Thr Met Leu Gln Cys Leu Lys Gln

85 90 95

Asn Lys Asn Ser Glu Leu Met Asp Pro Lys Cys Lys Gln Met Ile Thr

100 105 110

Lys Arg Gln Ile Thr Gln Asn Thr Gly Lys Ile Leu Ala Trp Leu Ser

115 120 125

Trp Pro Arg Gly Val Ser Glu Lys Glu Phe Ser Gly Cys Arg Val Thr

130 135 140

Cys Ser Asn Ser Gln Gly Phe Val Ala Trp Glu Phe

145 150 155

<210> 601

<211> 183

<212> PRT

<213> Homo sapiens

<400> 601

Met Glu Leu Ala Ala Leu Gly Leu Ser Pro Cys Pro Arg Leu Leu His
 1 5 10 15

Ala Glu Leu Leu Pro Gly Leu Leu Thr Val Phe Ser Leu Arg Phe Leu
 20 25 30

Gln Asp Tyr Gly Gly Tyr Leu Ser Thr Tyr Ile Leu Pro Ala Lys Gly
 35 40 45

Glu Asn Gln Gly Gln Thr Phe Thr Cys Gly Ser Ala Leu Ser Pro Ile
 50 55 60

Thr Asp Phe Lys Leu Tyr Ala Ser Ala Phe Ser Glu Arg Tyr Leu Gly
 65 70 75 80

Leu His Gly Thr Arg Asp Asn Ala Val Pro Ala Ala Ala Pro Pro Pro
 85 90 95

Gly Ala Arg Glu Thr Gly Thr Pro Arg Pro Leu Pro Gln Gly Thr Glu
 100 105 110

Gln Arg Met Val Ala Ala Gly Pro Thr Arg Ala His Arg Thr Pro Ala
 115 120 125

Pro Arg Phe Gln Pro Pro Ser Gly Ser Met Arg Pro Ala His Thr Ser
 130 135 140

Leu Cys Val Pro Val Arg Asp Ile Thr Pro Cys Leu Thr Ser Gln Cys
 145 150 155 160

His Gly Arg Ser Ser Tyr Ser Thr Ile Val Leu Ala Val Arg Val His
 165 170 175

Ile Trp Ala Cys Tyr Phe Leu
 180

<210> 602

<211> 579

<212> PRT

<213> Homo sapiens

<400> 602

Met	Lys	Asp	Lys	Ser	Asn	Gly	Leu	Glu	Ser	Gln	Val	Asn	Gln	Cys	Asp
1															15
Lys Met Leu Gly Gly Asp Ala Leu Val Thr Asp Leu Leu Val Asp Phe															
									25						30
Cys Gly Ser Arg Ser Gly Val Glu Ile Pro Arg Thr Pro Gln Leu Tyr															
										35					45
Val Ala His Glu Ile Gly Thr Ile Lys Thr Val Thr Pro Pro Glu Asp															
										50					60
Arg Asp Ser Glu Ser Gly Val Val Gly Gly Gln Gly Thr Leu Gln Glu															
										65					80
Pro Gly Phe Gly Glu Ala Ser Glu Ala Ile Ser Val Ser Arg Asn Arg															
										85					95
Gln Pro Ile Pro Leu Leu Met Asn Lys Glu Asn Ser Thr Lys Thr Ser															
										100					110
Lys Val Glu Leu Thr Leu Ala Ser Pro Tyr Met Lys Gln Glu Lys Glu															
										115					125
Glu Glu Lys Glu Gly Phe Ser Glu Ser Asp Phe Ser Asp Gly Asn Thr															
										130					140
Ser Ser Asn Ala Glu Ser Trp Arg Asn Pro Ser Ser Ser Glu Glu Glu															
										145					160
Pro Ser Pro Val Leu Lys Thr Leu Glu Arg Ser Ala Ala Arg Lys Met															
										165					175
Pro Ser Lys Ser Leu Glu Asp Ile Ser Ser Asp Ser Ser Asn Gln Ala															
										180					190

Lys Val Asp Asn Gln Pro Glu Glu Leu Val Arg Ser Ala Glu Asp Asp
 195 200 205
 Glu Lys Pro Asp Gln Lys Pro Val Thr Asn Glu Cys Val Pro Arg Ile
 210 215 220
 Ser Thr Val Pro Thr Gln Pro Asp Asn Pro Phe Ser His Pro Asp Lys
 225 230 235 240
 Leu Lys Arg Met Ser Lys Ser Val Pro Ala Phe Leu Gln Asp Glu Val
 245 250 255
 Ser Gly Ser Val Met Ser Val Tyr Ser Gly Asp Phe Gly Asn Leu Glu
 260 265 270
 Val Lys Gly Asn Ile Gln Phe Ala Ile Glu Tyr Val Glu Ser Leu Lys
 275 280 285
 Glu Leu His Val Phe Val Ala Gln Cys Lys Asp Leu Ala Ala Val Asp
 290 295 300
 Val Lys Lys Gln Arg Ser Asp Pro Tyr Val Lys Ala Tyr Leu Leu Pro
 305 310 315 320
 Asp Lys Gly Lys Met Gly Lys Lys Lys Thr Leu Val Val Lys Lys Thr
 325 330 335
 Leu Asn Pro Val Tyr Asn Glu Ile Leu Arg Tyr Lys Ile Glu Lys Gln
 340 345 350
 Ile Leu Lys Thr Gln Lys Leu Asn Leu Ser Ile Trp His Arg Asp Thr
 355 360 365
 Phe Lys Arg Asn Ser Phe Leu Gly Glu Val Glu Leu Asp Leu Glu Thr
 370 375 380
 Trp Asp Trp Asp Asn Lys Gln Asn Lys Gln Leu Arg Trp Tyr Pro Leu
 385 390 395 400
 Lys Arg Lys Thr Ala Pro Val Ala Leu Glu Ala Glu Asn Arg Gly Glu
 405 410 415
 Met Lys Leu Ala Leu Gln Tyr Val Pro Glu Pro Val Pro Gly Lys Lys

420	425	430
Leu Pro Thr Thr Gly Glu Val His Ile Trp Val Lys Glu Cys Leu Asp		
435	440	445
Leu Pro Leu Leu Arg Gly Ser His Leu Asn Ser Phe Val Lys Cys Thr		
450	455	460
Ile Leu Pro Asp Thr Ser Arg Lys Ser Arg Gln Lys Thr Arg Ala Val		
465	470	475
Gly Lys Thr Thr Asn Pro Ile Phe Asn His Thr Met Val Tyr Asp Gly		
485	490	495
Phe Arg Pro Glu Asp Leu Met Glu Ala Cys Val Glu Leu Thr Val Trp		
500	505	510
Asp His Tyr Lys Leu Thr Asn Gln Phe Leu Gly Gly Leu Arg Ile Gly		
515	520	525
Phe Gly Thr Gly Lys Ser Tyr Gly Thr Glu Val Asp Trp Met Asp Ser		
530	535	540
Thr Ser Glu Glu Val Ala Leu Trp Glu Lys Met Val Asn Ser Pro Asn		
545	550	555
Thr Trp Ile Glu Ala Thr Leu Pro Leu Arg Met Leu Leu Ile Ala Lys		
565	570	575
Ile Ser Lys		

<210> 603

<211> 261

<212> PRT

<213> Homo sapiens

<400> 603

Met Arg Ser Leu Leu Leu Ser Ala Phe Cys Leu Leu Glu Ala Ala
 1 5 10 15
 Leu Ala Ala Glu Val Lys Lys Pro Ala Ala Ala Ala Pro Gly Thr
 20 25 30
 Ala Glu Lys Leu Ser Pro Lys Ala Ala Thr Leu Ala Glu Arg Ser Ala
 35 40 45
 Gly Leu Ala Phe Ser Leu Tyr Gln Ala Met Ala Lys Asp Gln Ala Val
 50 55 60
 Glu Asn Ile Leu Val Ser Pro Val Val Ala Ser Ser Leu Gly Leu
 65 70 75 80
 Val Ser Leu Gly Gly Lys Ala Thr Thr Ala Ser Gln Ala Lys Ala Val
 85 90 95
 Leu Ser Ala Glu Gln Leu Arg Asp Glu Glu Val His Ala Gly Leu Gly
 100 105 110
 Glu Leu Leu Arg Ser Leu Ser Asn Ser Thr Ala Arg Asn Val Thr Trp
 115 120 125
 Lys Leu Gly Ser Arg Leu Tyr Gly Pro Ser Ser Val Ser Phe Ala Asp
 130 135 140
 Asp Phe Val Arg Ser Ser Lys Gln His Tyr Asn Cys Glu His Ser Lys
 145 150 155 160
 Ile Asn Phe Arg Asp Lys Arg Ser Ala Leu Gln Ser Ile Asn Glu Trp
 165 170 175
 Ala Ala Gln Thr Thr Asp Gly Lys Leu Pro Glu Val Thr Lys Asp Val
 180 185 190
 Glu Arg Thr Asp Gly Ala Leu Leu Val Asn Ala Met Phe Phe Lys Arg
 195 200 205
 Glu Ser Gly Ala Arg Ser Gly Val Leu Leu Leu Pro Gly Pro Pro
 210 215 220
 Ala Arg Val Arg Thr Thr Phe Arg Ala Leu His Ser Ser Leu Pro Leu

225	230	235	240
Ile Tyr Ala Val Thr Thr Gln Gly Gly Arg Thr Val Thr Gln Leu Phe			
245	250	255	
Val Gln Thr Gly Asn			
260			

<210> 604

<211> 281

<212> PRT

<213> Homo sapiens

<400> 604

Met Ala Glu Ala Ala Pro Ala Arg Asp Pro Glu Thr Asp Lys His Thr

1	5	10	15
---	---	----	----

Glu Asp Gln Ser Pro Ser Thr Pro Leu Pro Gln Pro Ala Ala Glu Lys

20	25	30
----	----	----

Asn Ser Tyr Leu Tyr Ser Thr Glu Ile Thr Leu Trp Thr Val Val Ala

35	40	45
----	----	----

Ala Ile Gln Ala Leu Glu Lys Lys Val Asp Ser Cys Leu Thr Arg Leu

50	55	60
----	----	----

Leu Thr Leu Glu Gly Arg Thr Gly Thr Ala Glu Lys Lys Leu Ala Asp

65	70	75	80
----	----	----	----

Cys Glu Lys Thr Ala Val Glu Phe Gly Asn Gln Leu Glu Gly Lys Trp

85	90	95
----	----	----

Ala Val Leu Gly Thr Leu Leu Gln Glu Tyr Gly Leu Leu Gln Arg Arg

100	105	110
-----	-----	-----

Leu Glu Asn Val Glu Asn Leu Leu Arg Asn Arg Asn Phe Trp Ile Leu

115	120	125
-----	-----	-----

Arg Leu Pro Pro Gly Ser Lys Gly Glu Ala Pro Lys Val Pro Val Thr
130 135 140

Phe Asp Asp Val Ala Val Tyr Phe Ser Glu Leu Glu Trp Gly Lys Leu
145 150 155 160

Glu Asp Trp Gln Lys Glu Leu Tyr Lys His Val Met Arg Gly Asn Tyr
165 170 175

Glu Thr Leu Val Ser Leu Asp Tyr Ala Ile Ser Lys Pro Asp Ile Leu
180 185 190

Thr Arg Ile Glu Arg Gly Glu Glu Pro Cys Leu Asp Arg Trp Gly Gln
195 200 205

Glu Lys Gly Asn Glu Val Glu Val Gly Arg Pro Arg Met Met Gly Thr
210 215 220

Gly Leu Pro Pro Tyr Pro Glu His Leu Thr Ser Pro Leu Ser Pro Ala
225 230 235 240

Gln Glu Glu Leu Lys Glu Gly Gln Ala Pro Lys Gln Gln Gln Asp Ser
245 250 255

Glu Ala Arg Val Ala Pro Ala Gly Pro Glu Ala Gly Leu Ala Leu Arg
260 265 270

Thr Asp Leu Gln Gly Glu Ala Gln Ile
275 280

<210> 605

<211> 126

<212> PRT

<213> Homo sapiens

<400> 605

Met Ser Pro Pro Leu Leu Phe Pro Gly Pro Ser His His His Val

1	5	10	15												
Ser	Pro	Gly	Leu	Leu	His	Ala	Pro	Pro	Thr	Trp	Ser	Pro	His	Phe	Cys
	20			25							30				
Pro	Gly	Arg	Gly	Trp	Cys	Val	Leu	His	Pro	Ala	Thr	Gln	Gln	Ser	Glu
	35			40							45				
Gly	Ser	Ser	Tyr	Asn	Ile	Ser	Gln	Ile	Thr	Ser	Leu	Phe	Ala	Gln	Asn
	50			55				60							
Pro	Ala	Met	Ala	Pro	Ile	Ser	Phe	Arg	Val	Asn	Ser	Lys	Ala	Pro	Tyr
	65			70			75				80				
Leu	Pro	Thr	Ala	Pro	His	Ser	Arg	Thr	Phe	Pro	Pro	Val	Val	Leu	Pro
	85				90				95						
Leu	Val	Pro	Ser	Ile	Pro	Ala	Thr	Gly	Ile	Ser	Leu	Leu	Ala	Pro	Glu
	100				105				110						
Leu	Thr	Arg	Tyr	Gly	Ala	Ala	Ser	Gly	Pro	Leu	His	Leu	Gln		
	115			120			125								

<210> 606

<211> 266

<212> PRT

<213> Homo sapiens

<400> 606

Met Val Met Ala Asp Gln Asn Gln Val Trp Val Gly Ser Glu Asp Ser

1 5 10 15

Val Ile Tyr Ile Ile Asn Val His Ser Met Ser Cys Asn Lys Gln Leu

20 25 30

Thr Ala His Cys Ser Ser Val Thr Asp Leu Ile Val Gln Asp Gly Gln

35 40 45

Glu Ala Pro Ser Asn Val Tyr Ser Cys Ser Met Asp Gly Met Val Leu
 50 55 60
 Val Trp Asn Val Ser Thr Leu Gln Val Thr Ser Arg Phe Gln Leu Pro
 65 70 75 80
 Arg Gly Gly Leu Thr Ser Ile Arg Leu His Gly Gly Arg Leu Trp Cys
 85 90 95
 Cys Thr Gly Asn Ser Ile Met Val Met Lys Met Asn Gly Ser Leu His
 100 105 110
 Gln Glu Leu Lys Ile Glu Glu Asn Phe Lys Asp Thr Ser Thr Ser Phe
 115 120 125
 Leu Ala Phe Gln Leu Leu Pro Glu Glu Glu Gln Leu Trp Ala Ala Cys
 130 135 140
 Ala Gly Arg Ser Glu Val Tyr Ile Trp Ser Leu Lys Asp Leu Ala Gln
 145 150 155 160
 Pro Pro Gln Arg Val Pro Leu Glu Asp Cys Ser Glu Ile Asn Cys Met
 165 170 175
 Ile Arg Val Lys Lys Gln Val Gly Trp Arg Ala Arg His Pro Gln His
 180 185 190
 Pro Arg Gln Val Ser Leu Ala Leu Ala Ser Pro Cys Ser Arg Glu
 195 200 205
 Pro Ala Ala Arg Pro Arg Ala Leu Leu Pro Ser Pro Leu Arg Val Pro
 210 215 220
 Leu Leu Thr Gly Thr Cys Arg Val Gly Ala Asn Gly Pro Thr Gly His
 225 230 235 240
 His Val Leu Val Ser Trp Cys Gly Pro Ser Thr Pro Gln Arg Ile Pro
 245 250 255
 Pro Asn Trp Met Ala Ser Asn Asp Arg Thr
 260 265

<210> 607

<211> 251

<212> PRT

<213> Homo sapiens

<400> 607

Met Gly Met Gly Thr Leu Ala Trp Gly Gln Pro Leu Leu Pro Arg Cys

1 5 10 15

Leu Cys Pro Arg Ala Gly Gln Arg Gln Pro Val Val Thr Ala Ala Val

20 25 30

Ala Ala Pro Gln Leu Thr Met Asn Asp Phe Ser Val His Arg Ile Ile

35 40 45

Gly Arg Gly Gly Phe Gly Glu Val Tyr Gly Cys Arg Lys Ala Asp Thr

50 55 60

Gly Lys Met Tyr Ala Met Lys Cys Leu Asp Lys Lys Arg Ile Lys Met

65 70 75 80

Lys Gln Gly Glu Thr Leu Ala Leu Asn Glu Arg Ile Met Leu Ser Leu

85 90 95

Val Ser Thr Gly Asp Cys Pro Phe Ile Val Cys Met Ser Tyr Ala Phe

100 105 110

His Thr Pro Asp Lys Leu Ser Phe Ile Leu Asp Leu Met Asn Gly Gly

115 120 125

Asp Leu His Tyr His Leu Ser Gln His Gly Val Phe Ser Glu Ala Asp

130 135 140

Met Arg Phe Tyr Ala Ala Glu Ile Ile Leu Gly Leu Glu His Met His

145 150 155 160

Asn Arg Phe Val Val Tyr Arg Asp Leu Lys Val Ser Ala Pro Ala Val

165 170 175

Pro Arg Leu Asp Leu Arg Gly Cys Pro Leu Leu Pro Leu Asp Ile Pro
 180 185 190
 Ala Thr Arg Pro Arg Gly Val Gly Leu Leu Gly His Gly Arg Pro Val
 195 200 205
 Ser Ser His Leu Arg Pro Cys Pro Ser His Arg Ala Thr Leu Trp Val
 210 215 220
 Gln Val Val Ala Gly Asp Arg Arg Glu Asp Pro His Leu Cys Pro Phe
 225 230 235 240
 Phe Gly Tyr Pro Ser Ser Ser Pro Val Lys Gln
 245 250

<210> 608

<211> 350

<212> PRT

<213> Homo sapiens

<400> 608

Met Met Glu Ser Ser Glu Leu Thr Pro Lys Gln Glu Ile Phe Lys Gly

1 5 10 15

Ser Glu Ser Ser Asn Ser Thr Ser Gly Gly Leu Phe Gly Val Val Pro

20 25 30

Gly Gly Thr Glu Thr Gly Asp Val Cys Glu Asp Thr Phe Lys Glu Leu

35 40 45

Glu Gly Gln Pro Ser Asn Glu Glu Gly Ser Arg Leu Glu Ser Asp Phe

50 55 60

Leu Glu Ile Ile Asp Glu Asp Lys Lys Ser Thr Lys Asp Arg Tyr

65 70 75 80

Glu Glu Tyr Lys Glu Val Glu Glu His Pro Pro Leu Ser Ser Ser Pro

85	90	95
Val Glu His Glu Gly Val Leu Lys Gly Gln Lys Ser Tyr Arg Cys Asp		
100	105	110
Glu Cys Gly Lys Ala Phe Tyr Trp Ser Ser His Leu Ile Gly His Arg		
115	120	125
Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Asn Glu Cys Gly Lys		
130	135	140
Thr Phe Arg Gln Thr Ser Gln Leu Ile Val His Leu Arg Thr His Thr		
145	150	155
160		
Gly Glu Lys Pro Tyr Glu Cys Ser Glu Cys Gly Lys Ala Tyr Arg His		
165	170	175
Ser Ser His Leu Ile Gln His Gln Arg Leu His Asn Gly Glu Lys Pro		
180	185	190
Tyr Lys Cys Asn Glu Cys Ala Lys Ala Phe Asn Gln Ser Ser Lys Leu		
195	200	205
Phe Asp His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Lys		
210	215	220
Glu Cys Gly Ala Ala Phe Ser Arg Ser Lys Asn Leu Val Arg His Gln		
225	230	235
240		
Phe Leu His Thr Gly Lys Lys Pro Tyr Lys Cys Asn Glu Cys Gly Arg		
245	250	255
Ala Phe Cys Ser Asn Arg Asn Leu Ile Asp His Gln Arg Thr His Thr		
260	265	270
Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Ser Arg		
275	280	285
Ser Lys Cys Leu Ile Arg His Gln Ser Leu His Thr Gly Glu Lys Pro		
290	295	300
Tyr Lys Cys Ser Glu Cys Gly Lys Ala Phe Asn Gln Ile Ser Gln Leu		
305	310	315
320		

Val Glu His Glu Arg Ile His Thr Gly Glu Lys Pro Phe Lys Cys Ser

325

330

335

Glu Cys Gly Lys Ala Phe Gly Leu Ser Lys Cys Leu Ile Arg

340

345

350

<210> 609

<211> 191

<212> PRT

<213> Homo sapiens

<400> 609

Met Tyr Ala Lys Arg Pro Glu Ser Phe Ser Cys Lys Lys Leu Ala Met

1

5

10

15

Ser Lys Lys Val Thr Pro Ala Ser Thr Gln Cys Val Arg Phe Pro Phe

20

25

30

Pro Ser Thr Val Val Cys Lys Lys Asn Leu Asp Ser Thr Thr Val Ala

35

40

45

Val His Gly Glu Glu Ile Tyr Cys Lys Ser Cys Tyr Gly Lys Lys Tyr

50

55

60

Gly Pro Lys Gly Tyr Gly Tyr Gln Gly Ala Gly Thr Leu Ser Thr

65

70

75

80

Asp Lys Gly Glu Ser Leu Gly Ile Lys His Glu Glu Ala Pro Gly His

85

90

95

Arg Pro Thr Thr Asn Pro Asn Ala Ser Lys Phe Ala Gln Lys Ile Gly

100

105

110

Gly Ser Glu Arg Cys Pro Arg Cys Ser Gln Ala Val Tyr Ala Ala Glu

115

120

125

Lys Val Ile Gly Ala Gly Lys Ser Trp His Lys Ala Cys Phe Arg Cys

130	135	140	
Ala Lys Cys Gly Lys Gly Leu Glu Ser Thr Thr Leu Ala Asp Lys Asp			
145	150	155	160
Gly Glu Ile Tyr Cys Lys Gly Cys Tyr Ala Lys Asn Phe Gly Pro Lys			
165	170	175	
Gly Phe Gly Phe Gly Gln Gly Ala Gly Ala Leu Val His Ser Glu			
180	185	190	

<210> 610

<211> 482

<212> PRT

<213> Homo sapiens

<400> 610

Met Trp Thr Val Pro Ser Phe Thr Asn Asp Ser Tyr Gln Val Tyr Asn			
1	5	10	15

Val Phe Ser Thr Asn Ser Phe Gln Leu Leu Thr Val Lys Arg Thr Pro			
20	25	30	

His Glu Ala Trp Arg Val Pro Leu Thr Thr Lys Thr Asn Lys Thr Lys			
35	40	45	

Gly Leu Pro Asp Cys Pro Lys Lys Pro Thr Asn Gly Pro Phe Ile Val			
50	55	60	

Thr Ser Ile Leu Trp Asp Asn Cys Asn Ala Pro Lys Ala Val Val Leu			
65	70	75	80

Gln Thr Leu Ala Met Gly Ile Val Ile Asp Trp Ala Pro Lys Gly His			
85	90	95	

Tyr Trp Gln Asp Cys Ser Ser Lys Asn Thr Leu Cys Ser Glu Phe Ile			
100	105	110	

Tyr Ser Leu Asp Tyr Ile Glu His Gly Trp Gln Ser Tyr Thr Met Arg
 115 120 125
 Gln Arg Val Ser Pro Tyr Pro Phe Lys Trp Met Asp Thr Gly Ile Ala
 130 135 140
 Pro Pro Arg Pro Lys Ile Ile His Pro Phe Phe Thr Pro Glu His Pro
 145 150 155 160
 Glu Leu Trp Lys Leu Ala Ala Ala Leu Ser Gly Ile Lys Ile Trp Asn
 165 170 175
 Thr Thr Tyr Gln Leu Leu Arg Thr Lys Thr Lys Thr Pro Thr Phe Asn
 180 185 190
 Ile Thr Leu Ile Ser Glu Trp Val Ile Pro Ile Arg Ser Cys Val Lys
 195 200 205
 Pro Pro Tyr Met Leu Leu Val Gly Asn Ile Ile Met Met Pro Asp Ala
 210 215 220
 Gln Thr Ile Glu Cys His Asn Cys Lys Leu Phe Thr Cys Ile Asp Ala
 225 230 235 240
 Thr Phe Asn Pro Thr Thr Ser Ile Leu Leu Val Arg Ala Arg Glu Gly
 245 250 255
 Val Trp Ile Pro Val Ser Leu His Arg Pro Trp Glu Ser Ser Pro Ser
 260 265 270
 Ile His Ile Val Asn Glu Val Leu Lys Asp Ile Leu Lys Arg Thr Lys
 275 280 285
 Arg Phe Ile Phe Thr Leu Ile Ala Val Leu Ala Gly Leu Leu Ala Val
 290 295 300
 Thr Ala Thr Ala Ala Thr Ala Gly Val Ala Ile Arg Ser Ser Val Gln
 305 310 315 320
 Thr Ala His Tyr Val Glu Ala Cys Gln Lys Asn Ser Ser Arg Leu Trp
 325 330 335
 Asn Ser Gln Ala Gln Ile Asp Gln Lys Leu Ala Asn Gln Ile Asn Asp

340	345	350
Leu Arg Gln Ser Val Thr Trp Leu Gly Asp Arg Val Met Asn Leu Gln		
355	360	365
His Arg Met Gln Leu Gln Cys Asp Trp Asn Thr Ser Asp Tyr Cys Ile		
370	375	380
Thr Pro Tyr Ala Tyr Asn Gln Asp Gln His Ser Trp Glu Asn Val Ser		
385	390	395
Arg His Leu Lys Ala Trp Asp Asp Asn Leu Thr Leu Asp Ile Ser Gln		
405	410	415
Leu Lys Glu Gln Ile Phe Glu Ala Ser Gln Val His Leu Ser Thr Val		
420	425	430
Pro Gly Ser His Ile Phe Glu Gly Ile Thr Lys Gln Leu Pro Asp Phe		
435	440	445
Asn Pro Phe Lys Trp Leu Lys Pro Val Arg Gly Ser Leu Leu Leu		
450	455	460
Ala Leu Leu Ile Leu Val Cys Leu Cys Cys Leu Leu Val Cys Arg		
465	470	475
Cys Leu		

<210> 611

<211> 465

<212> PRT

<213> Homo sapiens

<400> 611

Met Ala Ser Val Cys Cys Leu Pro Pro Pro Arg Ala Thr Trp Ala Ser

1

5

10

15

Trp Thr Arg Cys Pro Gly Cys Thr Thr Cys Trp Leu Ala Pro Thr Pro
 20 25 30
 Pro Arg Cys Trp Pro Ser Pro Trp Ser Arg Gly Gly Asp Ser Trp Pro
 35 40 45
 Pro Cys Pro Arg Thr Val Pro Ser Ala Ser Gly Ala Trp Pro Pro Cys
 50 55 60
 Asn Ser Ser Gly Ala Val Arg Ser Phe Ser Leu Glu Ala Ala Glu Val
 65 70 75 80
 Leu Val Glu His Thr Cys His Arg Gly Ala Val Thr Gly Leu Thr Ala
 85 90 95
 Thr Pro Asp Gly Arg Leu Leu Phe Ser Ser Cys Ser Gln Gly Ser Leu
 100 105 110
 Ala Gln Tyr Ser Cys Ala Asp Pro Gln Trp His Val Leu Arg Val Ala
 115 120 125
 Ala Asp Met Val Cys Pro Asp Ala Pro Ala Ser Pro Ser Ala Leu Ala
 130 135 140
 Val Ser Arg Asp Gly Arg Leu Leu Ala Phe Val Gly Pro Ser Arg Cys
 145 150 155 160
 Thr Val Thr Val Met Gly Ser Ala Ser Leu Asp Glu Leu Leu Arg Val
 165 170 175
 Asp Ile Gly Thr Leu Asp Leu Ala Ser Ser Arg Leu Asp Ser Ala Met
 180 185 190
 Ala Val Cys Phe Gly Pro Ala Ala Leu Gly Gln Leu Leu Val Ser Thr
 195 200 205
 Ser Ser Asn Arg Val Val Leu Asp Ala Val Ser Gly Arg Ile Ile
 210 215 220
 Arg Glu Leu Pro Gly Val His Pro Glu Pro Cys Pro Ser Leu Thr Leu
 225 230 235 240
 Ser Glu Asp Ala Arg Phe Leu Leu Ile Ala Ala Gly Arg Thr Ile Lys

245	250	255
Val Trp Asp Tyr Ala Thr Gln Ala Ser Pro Gly Pro Gln Val Tyr Ile		
260	265	270
Gly His Ser Glu Pro Val Gln Ala Val Ala Phe Ser Pro Asp Gln Gln		
275	280	285
Gln Val Leu Ser Ala Gly Asp Ala Val Phe Leu Trp Asp Val Leu Ala		
290	295	300
Thr Thr Glu Ser Asp Gln Ser Phe Pro Gly Ala Pro Pro Ala Cys Lys		
305	310	315
Thr Gly Pro Gly Ala Gly Pro Leu Glu Asp Ala Ala Ser Arg Ala Ser		
325	330	335
Glu Leu Pro Arg Gln Gln Val Pro Lys Pro Cys Gln Ala Ser Pro Pro		
340	345	350
Arg Leu Gly Val Cys Ala Arg Pro Pro Glu Gly Gly Asp Gly Ala Arg		
355	360	365
Asp Thr Arg Asn Ser Gly Ala Pro Arg Thr Thr Tyr Leu Ala Ser Cys		
370	375	380
Lys Ala Phe Thr Leu Ala Arg Val Ser Cys Ser Pro His Ser Ala Lys		
385	390	395
Gly Thr Cys Pro Pro Ala Ser Gly Gly Trp Leu Arg Leu Lys Ala		
405	410	415
Val Val Gly Tyr Ser Gly Asn Gly Arg Ala Asn Met Val Trp Arg Pro		
420	425	430
Asp Thr Gly Gly Gln Glu Pro Thr Pro Thr Pro Ser Gln Asp Ala		
435	440	445
Ala Ala Arg Gly Pro Ala Val Ser Thr Pro Arg Pro Gly Pro Gly Gly		
450	455	460
Lys		
465		

<210> 612

<211> 134

<212> PRT

<213> Homo sapiens

<400> 612

Met Gly Lys Lys Gln Ser Arg Lys Thr Gly Asn Ser Lys Lys Gln Ser
1 5 10 15
Ala Ser Pro Pro Pro Lys Glu Cys Ser Ser Ser Pro Ala Thr Glu Gln
20 25 30
Ser Trp Met Glu Asn Asp Phe Asp Glu Leu Arg Glu Ala Gly Phe Arg
35 40 45
Arg Ser Asn Tyr Ser Glu Leu Arg Glu Asp Ile Gln Thr Lys Gly Lys
50 55 60
Lys Val Glu Asn Phe Glu Lys Asn Leu Glu Glu Cys Ile Thr Arg Ile
65 70 75 80
Thr Asn Thr Glu Lys Cys Leu Lys Glu Leu Met Glu Leu Lys Thr Lys
85 90 95
Ala Arg Glu Leu Arg Glu Glu Cys Arg Ser Leu Arg Ser Arg Cys Asp
100 105 110
Gln Leu Glu Glu Arg Val Ser Ala Met Glu Asp Glu Met Asn Glu Met
115 120 125
Lys Gln Glu Gly Lys Val
130

<210> 613

<211> 4376

<212> DNA

<213> Homo sapiens

<400> 613

tgaccttctc	tcctccctgt	gtctttttt	ttcctttaga	gatgggggtc	ttgctctgtc	60
actccagctg	gagcacagtg	gtgcaatcg	agctcactga	ctgcggcctg	caactcctgg	120
gctcaagtga	ttctgccgcc	tcagcctctc	aacgtgctgc	gattagagag	tctgtagaag	180
aggcgacacc	agggcttcca	aatgaacaac	cgaaaggaag	atatggaaat	cacgtcccac	240
tacccgcacc	tgctgcggga	gctcaacgag	cagaggcagc	acggcgtcct	gtgcgacgtc	300
tgcgtggtcg	tggagggcaa	ggtcttcaag	gcmcacaaga	acgtcctgct	gggcagcagc	360
cgctacttca	agacgctcta	ctgccaggtg	cagaagacgt	cggagcaggc	cacggtcacf	420
cacctggaca	tcgtcacggc	ccagggcttc	aaggccatca	tcgacttcat	gtactcagcg	480
cacctggcgc	tcaccagcag	gaacgtcatc	gaggtgatgt	cagccgccag	cttcctgcag	540
atgacggaca	tcgtcaagc	ctgccacgac	ttcatcaagg	cggcgtgga	catcagcatc	600
aagtccggacg	cctcagatga	gcttgcggag	ttcgagatcg	gcmcctgctc	cagcagcagc	660
acggaagctc	tcatctcggc	cgtgatggct	gggaggagca	tctccccgtg	gtggcacgg	720
cgaacggatc	ctgccgattc	ttccggagac	tcggccatcg	ccagctgtca	cgacggaggg	780
agcagctacg	ggaaagagga	tcaggagccc	aaggccgatg	gccctgatga	tgtttttca	840
cagcctctat	ggcctggaga	cgtggctac	gggcctctgc	gcatcaagga	agagcaggtt	900
tcaccgtctc	agtacggagg	gagcgagctg	ccttctgcca	aggacggtgc	agtacagaac	960
tctttcttag	agcagagtgc	tggtgatgcc	tggcagccca	cgggcccgaag	gaagaatcg	1020
aaaaacaaag	agaccgtccg	gcacatcaca	cagcaggtgg	aagatgacag	ccgggccagc	1080
tccccggtgc	cgtccttcct	gccgacgtcg	gggtggccgt	tcagcagccg	agactcaaat	1140
gcggacactgt	ccgtcaccga	agccagcagc	tccgacagcc	gaggagagag	ggccgagctc	1200
tatgcacagg	tggaggaggg	tctcctggga	ggagaagcca	gctatctggg	ccctccccctc	1260
accccagaga	aggacgacgc	cctgcatcag	gccaccgcgg	tggccaacct	gcmcgcggcg	1320
ctcatgagta	agaacagcct	gctgtcgctg	aaggccgacg	tgctggggga	tgacggctcc	1380
ctgctgttcg	agtacctgcc	cagaggggcc	cactcgctgt	ccctgaatga	gttcacggtg	1440

atcaggaaga agttcaagtg tccgtactgc agcttctcggtccatgcacca gtgcaccc	1500
aaggcacaca tgccgtcgca cacgggagag cggccctacc cctgcgagat ctgcggaa	1560
aatgttcacgc ggcgcgagca catgaagcgc caccacgctgg tccacagcaa ggacaaga	1620
tatgtgtgca aggtgtgcag ccgcgtttc atgtccgcg ccagcgtggg catcaggcat	1680
ggctccaggc gccacggtgt gtgcacccgac tgtgctggcc gcggcatggc cgggcccc	1740
gaccatggcg gcggaggcgg cgagggtctt ccagaggcgc tttcccagg cgacggccc	1800
tatctggagg accctgagga cccacgaggg gaggcggagg agctggcga ggacgacgag	1860
ggcctggccc ctgaggatgc gctgttgccg gacgacaagg atgaggaaga ctcgcgcgg	1920
ccgcgcagcc ccccaggagg ccctgacaag gacttcgcct ggctctccta gcccgc	1980
ccggcagggt cgggtggctgc ctgcgtccgt ccacccgtgt gtgtgtccgg tgggtctcca	2040
ctgcggggcc agggccacgc tcacccctct cgcggccct cctctgcctt cccctgaacc	2100
caccccccac ggaaaccagc cctgcgggct aacgcagggtgc gacccagca agaggggtgc	2160
tctgggacca gacatgaagt gagttgggg aggacagg gtgggttga gtgaagggag	2220
agcacggtcc taagtccccca gcaggtggtg cgggtgtgt agtggccct gtgtatggcca	2280
gcctggcttg gacacgtgat gggcctgtgg ccgggtccag tggcactgg gcgggggtgg	2340
gtgttcggcc cagaggcccc tggcctgagc aggtgcagag ttacacagac acccggtcag	2400
cccgctgga gcccgcctc ccctcccta gcagccaggt cactgcctgt ggctgcagcc	2460
gtggcccggt gtgcagccgt gcccattggc agcctgttaga atccagggtgc acagagagcc	2520
ctgccaccgt cttacctctg ggctttggtg cttaacacac aacacagctg cagaccctgc	2580
tggaggccga gggctccagg tgctatctta ggtggacaca gcccggggg ctccctccag	2640
gaggggaccc tcagccctgt gccccccacc acttcaggcc acaccagggtt ccctctgaa	2700
gggcctcggc tcagtcgtgt gcacttcctc ggagagcctt gggctgccac gtccaccc	2760
ggctctgccc gtcctgttct gcccattggc cagccggcc gtcctgctg acccctctg	2820
gacgggttgg agctgggctc ctgccttgc tgctaactgg ggaggcgggtg ttccacttg	2880
cagtgtgctg cttacacccctc cccgcgtggg taaccaaatt tttaagttagt cagagacata	2940
tcgaggttgt tacataaaat tattttgttt ggcattattt ttctcactcg aagaaactat	3000
atagggttgt tttccttta gcttggctc aagtcccttt gctgtgttt cagaaggact	3060
cacatgttct ttctttctt gagtgaaaag caaaggccc acgggtgtgt ctgtgggtca	3120
ccgcctggct ttgggggtcc cggaggcagg ctgcctagac tcacagcctc gggaccgttg	3180

ccacggcctg tcttctcggt caggcctgcc tctgacagca ctcaccatga ggacattcca	3240
tccttcaccc cctcctctgg cacaggccac cactgcggtg ctgtgccttc agatgggagg	3300
tgggcgcggt ggccgcctcc ttccctccag gacctgcccgt tgtgaagacc ccccgagtg	3360
ctgagcttca gggctgcgtg gaaagagttt ttactcttt tttctagcct gtataccagg	3420
ctttccccca cattgtcagg tagagcacca gctccctga ccgctgctgc tcggggaggg	3480
ctggggctgg ccgggggtcc tgtggaggag tacatggagg actccaggta cagcgcagga	3540
gtcacggctt ttgtttttg acattggccc ccggttctac caatgacagg gtgccctggc	3600
tggagctgtc atcacacaca cccctcagct cgaggctgt gggctcctca aagctggaga	3660
aagaggccaa gattttctg cacacggagt gtggggatag gagccgggcc aagcgctggc	3720
ccctcagcgg tgagccctgc ccactttac cgagcaaggt gggtggctct ggcacgagtc	3780
ccccaggggg agagcatggc taccagggag ctgcagcggc gccctccagc cctcacccca	3840
ggccagcccc accccggcct cttagagaat tctcagaact ttgtacctt cccctgattt	3900
ttaaacccctt ttctaaaca gactgacttt cttacaaaat gcatttggaa accagacatt	3960
tgctacccac caatgtctct gggtttgtt ccagtccctg ctctcaggcc accctgccc	4020
ggacccagggc ccgcctcccc ctccacactc aggatgtcct gctccatctg gccggctcac	4080
tccgtgtggc ctgccttgc tgaccgttt ggggttcccc gccggagcta cagggcatt	4140
ttcttcccta aaaccaacag tgtcccactg acctcccaa gtgttgctg cgtggcagat	4200
ttcctgttct tgttcgactg ttgccgactg aagagtgtgg gatttccgag gcccagggtg	4260
gcacgtccat ctcaggaggc gtggagggaa aagacatgtc atgaagggtt tttttatgt	4320
gactgatttt ttttaaatac gatgttcaaa ctaataaata ttttttatg aagagg	4376

<210> 614

<211> 589

<212> PRT

<213> Homo sapiens

<400> 614

Met Asn Asn Arg Lys Glu Asp Met Glu Ile Thr Ser His Tyr Arg His

1	5	10	15
Leu Leu Arg Glu Leu Asn Glu Gln Arg Gln His Gly Val Leu Cys Asp			
20	-	25-	30
Val Cys Val Val Val Glu Gly Lys Val Phe Lys Ala His Lys Asn Val			
35	40	45	
Leu Leu Gly Ser Ser Arg Tyr Phe Lys Thr Leu Tyr Cys Gln Val Gln			
50	55	60	
Lys Thr Ser Glu Gln Ala Thr Val Thr His Leu Asp Ile Val Thr Ala			
65	70	75	80
Gln Gly Phe Lys Ala Ile Ile Asp Phe Met Tyr Ser Ala His Leu Ala			
85	90	95	
Leu Thr Ser Arg Asn Val Ile Glu Val Met Ser Ala Ala Ser Phe Leu			
100	105	110	
Gln Met Thr Asp Ile Val Gln Ala Cys His Asp Phe Ile Lys Ala Ala			
115	120	125	
Leu Asp Ile Ser Ile Lys Ser Asp Ala Ser Asp Glu Leu Ala Glu Phe			
130	135	140	
Glu Ile Gly Ala Ser Ser Ser Ser Thr Glu Ala Leu Ile Ser Ala			
145	150	155	160
Val Met Ala Gly Arg Ser Ile Ser Pro Trp Leu Ala Arg Arg Thr Ser			
165	170	175	
Pro Ala Asp Ser Ser Gly Asp Ser Ala Ile Ala Ser Cys His Asp Gly			
180	185	190	
Gly Ser Ser Tyr Gly Lys Glu Asp Gln Glu Pro Lys Ala Asp Gly Pro			
195	200	205	
Asp Asp Val Ser Ser Gln Pro Leu Trp Pro Gly Asp Val Gly Tyr Gly			
210	215	220	
Pro Leu Arg Ile Lys Glu Glu Gln Val Ser Pro Ser Gln Tyr Gly Gly			
225	230	235	240

Ser Glu Leu Pro Ser Ala Lys Asp Gly Ala Val Gln Asn Ser Phe Ser
 245 250 255
 Glu Gln Ser Ala Gly Asp Ala Trp Gln Pro Thr Gly Arg Arg Lys Asn
 260 265 270
 Arg Lys Asn Lys Glu Thr Val Arg His Ile Thr Gln Gln Val Glu Asp
 275 280 285
 Asp Ser Arg Ala Ser Ser Pro Val Pro Ser Phe Leu Pro Thr Ser Gly
 290 295 300
 Trp Pro Phe Ser Ser Arg Asp Ser Asn Ala Asp Leu Ser Val Thr Glu
 305 310 315 320
 Ala Ser Ser Ser Asp Ser Arg Gly Glu Arg Ala Glu Leu Tyr Ala Gln
 325 330 335
 Val Glu Glu Gly Leu Leu Gly Glu Ala Ser Tyr Leu Gly Pro Pro
 340 345 350
 Leu Thr Pro Glu Lys Asp Asp Ala Leu His Gln Ala Thr Ala Val Ala
 355 360 365
 Asn Leu Arg Ala Ala Leu Met Ser Lys Asn Ser Leu Leu Ser Leu Lys
 370 375 380
 Ala Asp Val Leu Gly Asp Asp Gly Ser Leu Leu Phe Glu Tyr Leu Pro
 385 390 395 400
 Arg Gly Ala His Ser Leu Ser Leu Asn Glu Phe Thr Val Ile Arg Lys
 405 410 415
 Lys Phe Lys Cys Pro Tyr Cys Ser Phe Ser Ala Met His Gln Cys Ile
 420 425 430
 Leu Lys Arg His Met Arg Ser His Thr Gly Glu Arg Pro Tyr Pro Cys
 435 440 445
 Glu Ile Cys Gly Lys Phe Thr Arg Arg Glu His Met Lys Arg His
 450 455 460
 Thr Leu Val His Ser Lys Asp Lys Lys Tyr Val Cys Lys Val Cys Ser

465	470	475	480
Arg Val Phe Met Ser Ala Ala Ser Val Gly Ile Arg His Gly Ser Arg			
485	490	495	
Arg His Gly Val Cys Thr Asp Cys Ala Gly Arg Gly Met Ala Gly Pro			
500	505	510	
Leu Asp His Gly Gly Gly Gly Glu Gly Ser Pro Glu Ala Leu Phe			
515	520	525	
Pro Gly Asp Gly Pro Tyr Leu Glu Asp Pro Glu Asp Pro Arg Gly Glu			
530	535	540	
Ala Glu Glu Leu Gly Glu Asp Asp Glu Gly Leu Ala Pro Glu Asp Ala			
545	550	555	560
Leu Leu Ala Asp Asp Lys Asp Glu Glu Asp Ser Pro Arg Pro Arg Ser			
565	570	575	
Pro Pro Gly Gly Pro Asp Lys Asp Phe Ala Trp Leu Ser			
580	585		

<210> 615

<211> 30

<212> RNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: an artificially synthesized oligo-cap linker sequence

<400> 615

agcaucgagu cggccuuguu ggccuacugg

30

<210> 616

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: an artificially synthesized oligo(dT) primer sequence

<400> 616

gcggctgaag acggcctatg tggcctttt tttttttt tt

42

<210> 617

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: an artificially synthesized primer sequence

<400> 617

agcatcgagt cggccttgtt g

21

<210> 618

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: an artificially synthesized primer sequence

<400> 618

gcggctgaag acggcctatg t

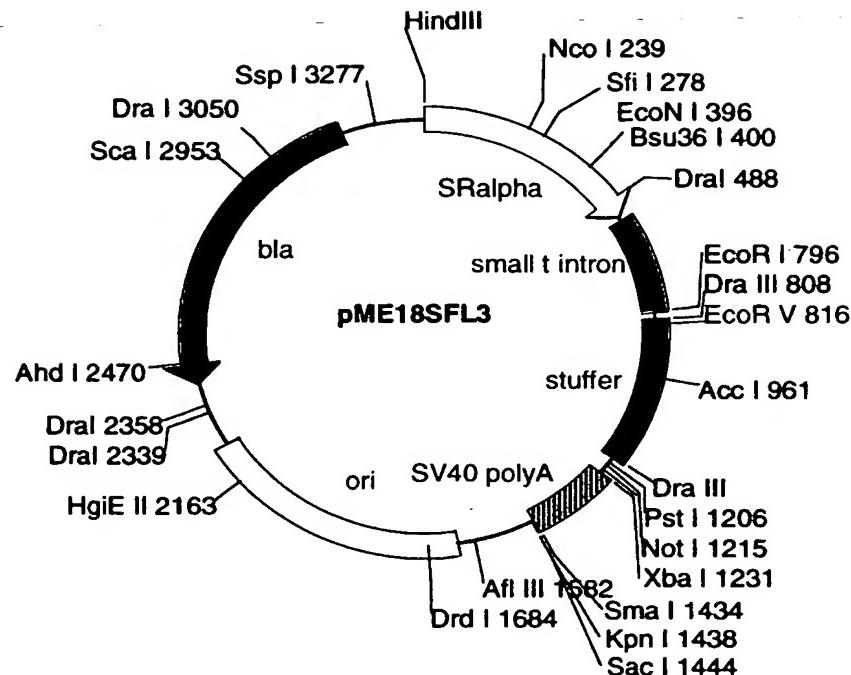
21

【図面の簡単な説明】

【図1】pME18SFL3のベクターのマップ

【書類名】 図面

【図 1】



【書類名】 要約書

【要約】

【課題】 新規な全長cDNAの提供。

【解決手段】 ヒトに由来する307のcDNAを単離した。そしてこのcDNAの全長塩基配列、並びにこの塩基配列によってコードされるアミノ酸配列を明らかにした。本発明のcDNAは全長であるため、翻訳開始点を含み、蛋白質の機能解析において有用な情報を与える。

【選択図】 なし

特願 2003-131392

出願人履歴情報

識別番号 [502235522]

1. 変更年月日 2002年 6月28日

[変更理由] 新規登録

住 所 東京都港区西新橋二丁目3番9号
氏 名 バイオテクノロジー開発技術研究組合